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Bibliography on Lice and Man

With Particular Reference to Wartime Conditions

Compiled by
MARY E. GRINNELL, Assistant Librarian
and
INA L. HAWES, Associate Librarian
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BIBLIOGRAPHICAL BULLETIN NO. 1

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PREFACE

This bibliography includes references to the literature on *Pediculus* and *Phthirus* published since 1917, when the extensive bibliographies of G. H. F. Nuttall appeared in volume X of Parasitology (item 185). In addition it contains some of the more important references from the Nuttall bibliographies. No attempt has been made to check all references with the originals. In many cases annotations have been made from abstracts rather than from an examination of the publications. Annotations relate mainly to control methods. The arrangement is chronological and alphabetical by author for each year, followed by an author and subject index.

Scientific names are usually given in the bibliography as they were found in the publication or abstract cited, but the Index uses *Pediculus humanus corporis* where definite reference is made to either "body louse" or "clothes louse," and *Pediculus humanus humanus* for the term "head louse." Where the insect is referred to only as *Pediculus humanus* it has been indexed under that name and no attempt made to assign a subspecies.

Call numbers following the citations are those of the United States Department of Agriculture. An asterisk (*) preceding the citation indicates that the article listed is available in photostat or microfilm only. Many of the publications cited without call numbers are available in the United States Army Medical Library. Abbreviations of periodical titles used are those in United States Department of Agriculture Miscellaneous Publication No. 337, Abbreviations Used in the Department of Agriculture for Titles of Publications.

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INTRODUCTION

By F. C. Bishopp, *assistant chief in charge of research, Bureau of Entomology and Plant Quarantine, Agricultural Research Administration*

Lice have been an important factor in deciding many wars. It has been said that Napoleon's defeat in his attempt to conquer Russia was due to epidemic typhus or ship fever, spread among his troops by body lice. During World War I typhus took a tremendous toll. Records indicate that more than 10 million Russians were stricken and more than 2 million died. The disease swept Poland and the Balkan States with terrible consequences.

Epidemic typhus remains one of the scourges of troops in the field and also civilian populations, especially under the stress of war or other trying conditions. No practical method of protecting large numbers of people from attack by the use of vaccines has been discovered; and as lice are the sole transmitters of the disease, their control is the most logical and effective method of dealing with this malady.

The body louse is also a transmitter of trench or quintana fever which caused much debility of troops during the first World War. Mexican typhus fever and certain relapsing fevers of man in North Africa, Europe, and Asia are also transmitted by lice. These insects are also important as parasites of man. They set up in many individuals intense irritation, resulting from their salivary secretions. This results in scratching, secondary infections, and characteristic white scars surrounded by brownish pigment.

The massing of people in war industries, in concentration camps, military operations, and raid shelters invariably encourages louse infestations and the introduction and spread of disease. Therefore, serious attention of research agencies, health authorities, and the general public should be directed to this problem and its solution. The compilation of a bibliography on lice is a necessary basis and stimulus for work in this field.

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LE TYPHUS EXANTHÉMATIQUE. Paris Méd., nos. 49–50, pp. 473–480. Apr. 17, 1915.
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CYANIDE GAS FOR THE DESTRUCTION OF INSECTS. WITH SPECIAL REFERENCE TO MOSQUITOES, FLEAS, BODY LICE, AND BEDBUGS. U. S. Pub. Health Serv. Rpts. 31 (23): 1464–1475. June 9, 1916. 151.65 P96

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Experiments show that *Pediculus humanus* is able to detect the vicinity of certain individuals through its sense of smell.—Abs. in Rev. Appl. Ent., B 5: 112. 1917.

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BEITRÄGE ZUR FRAGE VON DER BETEILIGUNG DER KOPFLAUS [PEDICULUS HUMANUS HUMANUS] AN DER FLECKFIEBERVERBREITUNG. Med. Klinik 12: 485, 511. 1916.

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DIE ORGANISATION DES ENTLAUSUNGSWESENS IN LODZ. Prakt. Desinfektor 1916 (4): 37–39. April 1916.

General observations on delousing of soldiers at Lodz. Specific insecticides not given.

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EINE ANREGUNG ZUR ANSTELLUNG VON KUTISREAKTIONEN BEI FLECKFIEBER. Deut. Med. Wchnschr. 42 (36): 1093–1094. Sept. 7, 1916. 448.8 D48

Suggests trial of extract prepared from lice for testing cutaneous reaction in typhus fever.

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SUR LA BIOLOGIE ET LA DESTRUCTION DES POUX. Rev. d'Hyg. 38 (11): 956–963. Nov. 20, 1916. 449.8 R32

The formula of Legroux was found by experiment to be satisfactory; it includes "Lemon grass, essence de menthe pouliot, essence d'eucalyptus, naphtaline pulvérisée."

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DIE METHANINSANIERUNG. München. Med. Wchnschr. 63 (45): 1582–1583. Nov. 7, 1916; 64 (24): 793–794. June 12, 1917. 448.8 M92

Use of the preparation "methanin" for disinfesting clothing, and construction of special apparatus for using it.

Mayer, K. W. G. (115)
BEITRÄGE ZUR BEKÄMPFUNG DER KLEIDERLAUSPLAGE. 41 pp. Erlangen, K. B. Hof- und Universitäts Buchdruckerei von Junge & Sohn. 1916. (Thesis.)

Gives results of experiments with "Kresolpuder; p-Dichlorbenzol (Globol); Lausofan; Anisöl; Eukalyptusöl; Fenchelöl; Nelkenöl; Tinctura calami; Bergamottöl; Rapsöl; Anisol (Methylphenylether) chloroform; Kresol-seifenlösung; Formalin; Schweflig Säure." Also gives experiments with steam and dry heat and remarks on delousing establishments and methods.

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THE CHADWICK LECTURES ON TYPHUS FEVER IN SERBIA. I–III. Lancet [London] 190 (4839, 4840, 4841): 1069–1073, 1111–1114, 1157–1160. May 27, June 3, 10, 1916. 448.8 L22

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BEITRAG ZUR FLECKTYPHUS ÜBERTRÄGUNG DURCH LAUSE. [TRANSMISSION OF TYPHUS BY LICE.] Berlin. Klin. Wchnschr. 53 (28): 778–780. July 10, 1916. 448.8 B45

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THE ETIOLOGY OF TYPHUS FEVER IN MEXICO (TABARDILLO). Amer. Med. Assoc. Jour. 66 (22): 1692–1693. May 27, 1916. 448.9 Am37

Cultures from patients and lice taken from them yielded *Bacillus typhi-exanthematici.* (Preliminary communication.)

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THE LOUSE PROBLEM AT THE WESTERN FRONT. 29 pp., illus. London, H. M. Stationery Off. 1916.

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TYPHUS FEVER: PREVENTION AND CONTROL. Tex. State Jour. Med. 12 (4): 182–188. August 1916.
Some simple rules to avoid typhus.—Rev: in Trop. Dis. Bul. 8 (8): 487. Dec. 15, 1916. 448.8 T752

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BEITRAG ZUR KENNTNIS DER DIFFERENTIALCHARACTER ZWISCHEN PEDICULUS CAPITIS, DE GEER UND PEDICULUS CORPORIS, DE GEER. [A CONTRIBUTION TO THE KNOWLEDGE OF THE DIFFERENTIAL CHARACTERS BETWEEN P. CAPITIS AND P. HUMANUS (CORPORIS).] Centbl. f. Bakt. [etc.] Abt. I, Originale 79 (1): 29–33. Dec. 19, 1916. 448.3 C33
Abs. in Rev. Appl. Ent., B 6: 75. 1918.

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OBSERVATIONS CLINIQUES ET ÉTIOLOGIQUES SUR LES CAS DE TYPHUS SOIGNÉS À L'HÔPITAL PERMANENT DE LA MARINE DE SIDI-ABDALLAH. V. REMARQUES SUR LES MESURES DE PROPHYLAXIE ET LE RÔLE DES ECTOPARASITES. [CLINICAL AND ETIOLOGICAL OBSERVATIONS ON CASES OF TYPHUS TREATED AT THE PERMANENT NAVAL HOSPITAL AT SIDI-ABDALLAH. V. REMARKS ON PROPHYLACTIC MEASURES AND THE PART PLAYED BY ECTOPARASITES.] Inst. Pasteur de Tunis. Arch. 9 (4): 282–285. September 1916. 448.3 In 72
Observations support the view that the propagation of typhus is entirely due to ectoparasites.—Abs. in Rev. Appl. Ent., B 5: 7. 1917.

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UEBER HEISSLUFTENTLAUSUNG MIT FUSSBODENHEIZUNG. [A SYSTEM OF FLOOR-HEATING IN DELOUSING WITH HOT AIR.] Osterr. Sanitätswesen [Vienna] 28 (44/52): 1674–1698, illus. November/December 1916.
Details of construction and operation.—Abs. in Rev. of Appl. Ent., B 8: 104. 1920.

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EIN TRANSPORTABLER ENTLAUSUNGSKÄSTEN. [A PORTABLE APPARATUS FOR LOUSE DISINFECTION.] München. Med. Wchnschr. 63 (32): 1177. Aug. 8, 1916. 448.8 M92
For use of heat on clothing.—Abs. in Rev. Appl. Ent., B 5: 29. 1917.

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BEOBACHTUNGEN BEI FLECKTYPHUSLÄUSEN. [OBSERVATIONS ON TYPHUS-INFECTED LICE.] Arch. f. Schiffs u. Tropen Hyg. 20 (2): 17–31, illus. January 1916. 449.8 Ar22
Abs. in Rev. Appl. Ent., B 5: 100. 1917.

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UNTERSUCHUNGEN ÜBER FLECKFIEBER. [RESEARCHES ON TYPHUS.] München. Med. Wchnschr. 63 (39): 1381–1384. Sept. 26, 1916. 448.8 M92
Experiments on heredity of the infection in lice and transmission by lice.—Abs. in Rev. Appl. Ent., B 5: 110. 1917.

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ZUR BIOLOGIE DER KLEIDERLAUS [PEDICULUS HUMANUS CORPORIS]. [BIOLOGY OF BODY LICE. München. Med. Wchnschr. 63 (42): 1507. Oct. 17, 1916. 448.8 M92

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ZUR BIOLOGIE DER KLEIDERLAUS [PEDICULUS HUMANUS CORPORIS]. UEBERTRAGUNG AUF DEM LUFTWEGE. [THE TRANSPORTATION OF LICE BY WIND.] München. Med. Wchnschr. 63 (32): 1176. Aug. 8, 1916. 448.8 M92
Wind transportation considered as a source of danger in case of typhus and recurrent fever.—Abs. in Rev. Appl. Ent., B 5: 28. 1917.

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ZUR LÄUSEVERTILGUNGSFRAGE. [LOUSE DESTRUCTION.] München. Med. Wchnschr. 63 (43): 1538–1539. Oct. 24, 1916. 448.8 M92
Results of experiments with a number of liquids and powders; cresol-soap solution, 5 percent, being the most effective.—Abs. in Rev. Appl. Ent., B 5: 111. 1917.

Shipley, A. E. (130)
THE MINOR HORRORS OF WAR. Ed. 3, 186 pp., illus. London, Smith, Elder & Co. 1916.
U. S. Dept. Agr. Library has Ed. 2, 178 pp. 1915. 422 Sh62
The Louse, pp. 1–35. Popular and humorous.

Sikora, H. (131)
BEITRÄGE ZUR ANATOMIE, PHYSIOLOGIE, UND BIOLOGIE DER KLEIDERLAUS, (PEDICULUS VESTIMENTI NITZSCH). I, ANATOMIE DES VERDAUUNGSTRAKTES. Arch. f. Schiffs u. Tropen Hyg., bd. 20, beih. 1, 76 pp., illus. 1916. 449.8 Ar22B

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CONTRE LES POUX. Bul. des Sci. Pharmacol. 23 (9/10, [sup.]): 116–117. September/October 1916. 396.8 B872
Pyrethrum powder is recommended. A formula is given which includes naphthalene, oil of cloves, oil of eucalyptus, oil of cade, xylol and terebinthine (oleo-resin).

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UEBER EINEN ALS ERREGER DES FLECKFIEBERS VERDÄCHTIGEN PARASITEN DER KLEIDERLAUS. [ON A PARASITE OF THE CLOTHES LOUSE SUSPECTED OF BEING THE EXCITANT OF TYPHUS FEVER.] Deut. Med. Wchnschr. 42 (15): 439–442. Apr. 13, 1916. 448.8 D48
Records presence in intestine of *Pediculus humanus* of a hitherto unknown parasite, *Strickeria jürgensi*, gen. et sp. n., perhaps allied to *Babesia* or *Leishmania*.—Abs. in Rev. Appl. Ent., B 5: 111. 1917.

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LA LUTTE CONTRE LES POUX. Assoc. Internatl. de Bains Populaires et de Propreté. Bul. [La Haye] 4: 3–9, illus. 1916.
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Töpfer, H. (135)
DER FLECKFIEBERERREGER IN DER LAUS. [THE CAUSATIVE AGENT OF TYPHUS FEVER IN THE LOUSE.] Deut. Med. Wchnschr. 42(41): 1251–1254. Oct. 12, 1916. 448.8 D48
Bacteria-like organisms in the louse.—Abs. in Rev. Appl. Ent., B 5: 112. 1917.

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DIE UEBERTRAGUNG DER REKURRENS DURCH LAUSE. [THE TRANSMISSION OF RECURRENT FEVER BY LICE.] München. Med. Wchnschr. 63(44): 1571–1572. Oct. 31, 1916. 448.8 M92
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ZUR URSACHE UND UEBERTRAGUNG DES WOLHYNISCHEN FIEBERS. [THE CAUSE AND TRANSMISSION OF VOLHYNIAN FEVER.] München. Med. Wchnschr. 63(42): 1495–1496. Oct. 17, 1916. 448.8 M92
Volhynian fever transmitted by lice.—Abs. in Rev. Appl. Ent., B 5: 111. 1917.

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ZUR AETIOLOGIE DES FLECKFIEBERS. [THE AETIOLOGY OF TYPHUS.] Deut. Med. Wchnschr. 42(38): 1157–1158. Sept. 21, 1916. 448.8 D48
Bacteria-like organisms appear in lice fed on typhus patients; contents of the gut of an infected louse gives rise to febrile condition in guinea pig.—Abs. in Rev. Appl. Ent., B 5: 112. 1917.

Toyoda, S. (139)
STUDY OF THE ORGANISM OF RELAPSING FEVER IN MANCHURIA. Saikingaku Zasshi [Jour. Bact.] No. 250, pp. 47–77. Sept. 10, 1916.
Lice recognized as the transmitting agents of relapsing fever, but no additional proof obtained.—Abs. in China Med. Jour. 31(4): 334–335. July 1917; Rev. Appl. Ent., B 6: 50. 1918.

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FLECK TYPHUS. THE SCOURGE OF THE EASTERN WAR THEATRE. N. Y. Med. Jour. 103(25): 1167–1169, illus. June 17, 1916. 448.8 N48
The louse problem was dealt with vigorously by construction of distinfection stations where the men bathed and their clothing was sterilized by dry heat.—Abs. in Rev. Appl. Ent., B 5: 31. 1917.

United States Bureau of Entomology. (141)
IMPORTANT INSECTS WHICH MAY AFFECT THE HEALTH OF MEN OR ANIMALS ENGAGED IN MILITARY OPERATIONS. U. S. Dept. Agr. Off. Sec. Cir. 61, 24 pp., illus. Washington, D. C. 1916. 1 Ag86C

Lice, pp. 16–19. More than half of this section is devoted to control measures suggested by A. D. Peacock, J. P. Kinlock, A. Soulima and B. Elbert, R. Legroux, and J. Legendre.

Vago, H. A. (142)
EINE LEICHT HERSTELLBARE ENTLAUSUNGSANLAGE ZUR ABTÖTUNG DER KLEIDERLAUSE DURCH ÜBERHITZTEN DAMPF. [AN EASILY CONSTRUCTED ARRANGEMENT FOR KILLING CLOTHES-LICE BY SUPERHEATED STEAM.] Med. Klinik 12: 240. 1916.

Steam is generated in an ordinary kitchen boiler and led to a trench in the ground where the infested clothing is placed. One-half hour at 212°–230° F. (100°–110° C.) is needed for disinfection.—Abs. in Rev. Appl. Ent., B 6: 172. 1918.

Vrijheid, J. A. (143)
PEDICULI EN PEDICULOSIS. Med. Weekbl. [Amsterdam] 22(45.46,47): 545–548, 557–560, 569–572. Feb. 5, 12, 19, 1916.

Reviews the then current German literature and gives the numerous control measures contained in it.

1917

Anonymous. (144)
THE CAUSE OF TYPHUS FEVER. Brit. Med. Jour. 1917, 2(2963): 491. Oct. 13, 1917. 448.8 B77

Professor Kenzo Futaki of Tokyo has found *Spirochaeta exanthematotyphi* in sections of kidneys of typhus patients and also in the louse.—Abs. in Rev. Appl. Ent., B 5: 187. 1917.

——— (145)
THE LOUSE PROBLEM. Lancet [London] 192(4881): 421–422. Mar. 17, 1917. 448.8 L22

Bacot, A. W. (146)
A CONTRIBUTION TO THE BIONOMICS OF PEDICULUS HUMANUS (VESTIMENTI) AND PEDICULUS CAPITIS. Parasitology 9 (2): 227–258, illus. Feb. 26, 1917. 448.8 P21

Abs. in Rev. Appl. Ent., B 5: 69. 1917

——— (147)
THE LOUSE PROBLEM. Roy. Soc. Med. Proc. 10 (Sect. of Epidemiol. and State Med.):61–94. Feb. 23, 1917.

Preventive measures for the protection of troops at the front are described. They include the establishment of baths, wash houses and laundries, and a summary of insecticides which might be issued. For treating garments, the best remedy is crude carbolic acid emulsified with soft soap, but its action is slow. The most efficient, cheap, and quick-acting remedy is naphthalene. Abs. in Rev. Appl. Ent., B 5: 90. 1917.

——— (148)
A SIMPLE MEANS OF ASCERTAINING IF A STERLIZING HUT IS HOT ENOUGH TO DESTROY LICE AND NITS IN CLOTHING OR BLANKETS. Brit. Med. Jour. 1917, 2 (2953): 151. Aug. 4, 1917. 448.8 B77

Use of porcelain containers containing a given quantity of stearin or paraffin wax of a suitable melting point.—Abs. in Rev. Appl. Ent., B 5: 153. 1917.

Baehr, George, and Plotz, Harry. (149)
REPORT OF AN EXPEDITION TO THE BALKANS AND RUSSIA IN 1916–1917. [STUDIES IN TYPHUS FEVER.] Med. Rec. 91 (7): 300–301. Feb. 17, 1917. 448.8 M461

Bapty, W. (150)
TREATMENT OF PEDICULOSIS PUBIS. Brit. Med. Jour. 1917, 2 (2968): 676. Nov. 17, 1917. 448.8 B77

Recommends use of petrol when available, otherwise paraffin (coal oil or kerosene) which, however, causes a burning sensation.

Baumgarten, A. (151)

UEBER EIN NEUES ENTSEUCHUNGS—UND ENTLÄUSUNGSVERFAHREN. [A NEW PROCESS FOR DESTROYING GERMS AND LICE.] München. Med. Wchnschr. 64 (13): 434–435. Mar. 27, 1917. 448.8 M92

Destroying lice by using naphthalene vapor.—Abs. in Rev. Appl. Ent., B 6: 55. 1918.

Blau. (152)

DIE PLANMÄSSIGE INSEKTENBEKÄMPFUNG BEI DEN RUSSEN. [THE CAMPAIGN AGAINST INSECTS IN RUSSIA.] Ztschr. f. Hyg. u. Infektionskrank. 83 (3): 343–382. May 3, 1917. 449.8 Z3

As a measure against lice Carpathian herdsmen dip their linen in melted butter which is supposed to act mechanically by preventing the deposition of the eggs. Solution recommended contains 65 parts of naphtha soap and 35 parts cresol, diluted to 10 percent strength for rinsing linen.—Abs. in Rev. Appl. Ent., B 6: 135 1918.

Boyd, M. F. (153)

DELOUSING MEASURES OF SANTA FÉ RAILWAY SYSTEM. Amer. Jour. Pub. Health 7(8): 667–671. August 1917. 449.9 Am3J

Individuals deloused by a 10-minute bath in kerosene and soapsuds, with a kerosene and vinegar bath for the hair; clothing exposed to heat in excess of 160° F. for 20 minutes; bunks sprayed with kerosene. Equipment for delousing installed in freight cars.

Buchanan, G. S. (154)

EPIDEMICS OF THE EASTERN CAMPAIGNS. Roy. Soc. Med. Proc. 11: 1–30. 1917. 448.9 R814

Lice and disease, pp. 19–22.

Calvert, P. P. (155)

INSECTS AND HUMAN MORTALITY IN WAR. Old Penn (Weekly Mag. Univ. Pa.) 16(12): 297–302. Dec. 21, 1917. Libr. Cong.

Relation of the louse, *Pediculus humanus*, to typhus is discussed in detail.—Abs. in Rev. Appl. Ent., B 6: 80. 1918.

Cholodkovski, N. A. (156)

[THE IDENTIFICATION OF HUMAN LICE.] (In Russian.) 6 pp., illus. Petrograd. 1917.

Separate from Voenno Meditsinskiĭ Zhurnal [Army Medical Journal]. 1917.

Descriptions of egg and illustrations to differentiate *Pediculus capitis*, *P. humanus* and *Phthirus pubis*.—Abs. in Rev. Appl. Ent., B 11: 66. 1923.

Cohen, Henry. (157)

VITALITY OF LICE. Nature [London] 100(2500): 66. Sept. 27, 1917. 472 N21

Pediculus capitis regained normal activity after submersion in water for 15 hours.

Corsini, A. (158)

I CORREDINI ANTIPEDICULARI. [ANTI-LOUSE SACHETS.] Ann. d'Ig. [Rome] 27(6): 364–372. June 30, 1917. 449.8 An72

Description of three principal kinds of anti-louse sachets used in Italy. The most efficient one contains crude naphthalene to which 2 percent of creosote has been added, the second contains a mixture of 1 part camphor and 9 parts of either refined or commercial naphthalene, the third and least efficient contains the same mixture as the second in smaller quantity.—Abs. in Rev. Appl. Ent., B 5: 144. 1917.

Cumming, J. G. (159)

A RÉSUMÉ OF THE TYPHUS SITUATION IN MEXICO. Calif. State Bd. Health. Monthly Bul. 12 (10): 213–217. April 1917. 449.7 C12M

——— and Senftner, H. F. (160)

THE PREVENTION OF ENDEMIC TYPHUS IN CALIFORNIA. Amer. Med. Assoc. Jour. 69 (2): 98–104, illus. July 14, 1917. 448. 9 Am37

Enforcement of louse-eradication measures among Mexican immigrants employed in railway section camps.—Abs. in Rev. Appl. Ent., B 5: 170. 1917.

DEBREUIL, G. (161)
LES POUX ET LE CHEMINEAU. [LICE AND A TRAMP.] Soc. Natl. d'Acclim. de France. Bul. 64 (8): 318–322. August 1917. 410.9 P21

A tramp placed his clothing around a large nest of ants (*Formica fusca*) which completely removed the lice.—Abs. in Rev. Appl. Ent., B 5: 175. 1917.

FAHRENHOLZ, H. (162)
ANOPLUREN DES ZOOLOGISCHES MUSEUMS ZU HAMBURG; 3. BEITRAG ZUR KENNTNIS DER ANOPLUREN. Hamburg Zool. Staatsinst. u. Zool. Mus. Mitt. 34: 1–22. 1917. 410.9 H172

FELT, EPHRAIM P. (163)
HOUSEHOLD AND CAMP INSECTS. N. Y. State Mus. Bul. 194: 5–48. February 1917. 500 N48B

Human-infesting lice, pp. 40–48. The insects are described, their habits discussed, and methods of eradicating them given.

FERRARI, A. (164)
LICE IN TRANSMISSION OF SMALLPOX. Brasil-Med. 31: 443. Dec. 29, 1917.

FOULERTON, A. G. R. (165)
ON TYPHUS FEVER. Roy. Army Med. Corps. Jour. 29 (2): 224–228. August 1917. 448.9 R81

Occurrence, transmission and association of typhus fever with other diseases in the Austro-German armies.—Abs. in Rev. Appl. Ent., B 5: 171. 1917.

FURNO, A. (166)
LA LOTTA CONTRO LA PEDICULOSI FRA LE TRUPPE IN GUERRA. [THE CONTROL OF PEDICULOSIS AMONG TROOPS IN WAR.] Ann. d'Ig. [Rome] 27 (3): 141–157. Mar. 31, 1917. 449.8 An72

Sachets worn between outer and under garments. The best formula was found to be: Coarse naphthalene, 50 parts by weight, and either creosote, 1 part, or camphor, 5 parts. Heat treatment of clothing also described.—Abs. in Rev. Appl. Ent., B 5: 91. 1917.

GOODWIN, T. H. (167)
SANITATION IN WAR. Mil. Surg. 41 (4): 377–387. October 1917.

Contains practical notes on lice and methods of destroying them. "N. C. I." powder, "Vermijelli" (mineral oil and soft soap), and crude oil ointment are recommended.

GREAT BRITAIN WAR OFFICE. (168)
NOTES FOR SANITARY OFFICERS, BRITISH EXPEDITIONARY FORCE IN FRANCE, 1917. 84 pp. London, H. M. Stationery Off. 1918.

GRIMSHAW, P. H. (169)
THE BRITISH LICE (ANOPLURA) AND THEIR HOSTS. Scot. Nat. 1917 (61): 13–17, 65–68. January 1917. 410 Sco3

GUITEL, F. (170)
LA STATION ENTOMOLOGIQUE DE LA FACULTÉ DES SCIENCES DE RENNES EN 1917. Insecta, Rennes 8 (85/96): 177–181. 1918. 421 In74

Mentions distribution of large quantities of sublimated sulfur to troops for use against *Pediculus humanus* (*vestimenti*).—Abs. in Rev. Appl. Ent., B 7: 115. 1919.

GUNN, J. A. (171)
A NOTE ON THE PREVENTION OF PEDICULOSIS. Brit. Med. Jour. 1917, 1 (2940): 579–580. May 5, 1917. 448.8 B77

Thin cotton undervests impregnated with a solution of 1½ oz. each of naphthalene and sulfur in 1 gal. of benzol or petrol gave satisfactory results.—Abs. in Rev. Appl. Ent., B 5: 91. 1917.

HALL, H. C. (172)
THE LOUSE PROBLEM. N. Y. Med. Jour. 105 (23): 1071–1075, illus. June 9, 1917.

HARTMANN, ARMIN, and PRESSBURGER, RUDOLF. (173)
ZUR FRAGE DER ENTLAUSUNG UND DESINFEKTION ANLÄSSLICH DER DEMOBILISIERUNG. Med. Klinik 13 (26): 710–712, illus. July 1, 1917.

Description of a hot-air disinfesting apparatus.

HICKS, J. R. (174)

THE MODERN HYGIENE OF TYPHUS FEVER—ITS APPLICATION AT THE PORT OF NEW YORK. Amer. Jour. Pub. Health 7 (7): 628–630. July 1917. 449.9 Am3J

Petroleum bath, about 6 oz. per person, used on immigrants; their clothes disinfected by steam under pressure.—Abs. in Rev. Appl. Ent., B 6: 120. 1918.

HINDLE, EDWARD. (175)

NOTES ON THE BIOLOGY OF PEDICULUS HUMANUS. Parasitology 9 (2): 259–265. February 1917. 448.8 P21

The occurrence of male and female broods and the inheritance of melanism.—Abs. in Rev. Appl. Ent., B 5: 70. 1917.

HOWLETT, F. M. (176)

NOTES ON HEAD- AND BODY-LICE AND UPON TEMPERATURE REACTIONS OF LICE AND MOSQUITOES. Parasitology 10 (1): 186–188. Nov. 29, 1917. 448.8 P21

Experimental observations made in India.—Abs. in Rev. Appl. Ent., B 6: 19. 1918.

JUNGMANN, P., and KUCZYNSKI, M. H. (177)

ZUR KLINIK UND AETIOLOGIE DER FEBRIS WOLHYNICA (HIS-WERNERISCHE KRANKHEIT). [THE CLINICAL SYMPTOMS AND AETIOLOGY OF VOLHYNIAN FEVER (HIS-WERNER'S DISEASE).] Deut. Med. Wchnschr. 43 (12): 359–362 Mar. 22, 1917. 448.8 D48

Confirmation of Töpfer's statement that lice are the carriers.—Abs. in Rev. Appl. Ent., B 5: 131. 1917.

KOCH, J. (178)

ZUR UEBERTRAGUNG DES ERREGERS DES EUROPÄISCHEN RÜCKFALLFIEBERS (FEBRIS RECURRENS) DURCH DIE KLEIDERLAUS. [THE TRANSMSISSION OF THE AGENT OF EUROPEAN RECURRENT FEVER BY THE CLOTHES LOUSE.] Deut. Med. Wchnschr. 43 (34): 1066–1069, illus. Aug. 23, 1917. 448.8 D48

Abs. in Rev. Appl. Ent., B 6: 59. 1918.

KÜLZ, L. (179)

BEITRÄGE ZUR PATHOLOGIE UND THERAPIE DES RÜCKFALLFIEBERS. [CONTRIBUTIONS TO THE PATHOLOGY AND TREATMENT OF RECURRENT FEVER.] Arch. f. Schiffs u. Tropen Hyg. 21 (11/12): 181–188. June 1917. 449.8 Ar 22

Observations on recurrent fever among German and other troops.—Abs. in Rev. Appl. Ent., B 6: 136. 1918.

MCCULLOCH, C. C. (180)

SANITATION IN THE TRENCHES. Amer. Med. Assoc. Jour. 69 (2, 3): 81–87, 183–185, illus. July 14, 21, 1917. 448.9 Am37

Methods of destroying lice include N. C. I. powder, ointment of crude mineral oil and soft soap, wearing of undergarments impregnated with a solution of 1 percent each of naphthalene and sulfur in benzene or gasoline, fumigating with sulfur dioxide, use of heat and steam.

MACDOUGALL, R. S. (181)

INSECT AND ARACHNID PESTS OF 1916. Highland and Agr. Soc. Scot. Trans. (ser. 5) 29: 116–152, illus. 1917. 10 H536

Lice on men, pp. 116–117. Recommendations for the control of lice [*Pediculus humanus*] include the use of the powder known as N. C. I. and of undervests of butter-muslin soaked in insecticide solution.—Abs. in Rev. Appl. Ent., B 6: 81. 1918.

MARTINI, E. (182)

ZUR KENNTNIS DES VERHALTENS DER LÄUSE GEGENÜBER WÄRME. [A CONTRIBUTION TO THE KNOWLEDGE OF THE BEHAVIOUR OF LICE WITH REFERENCE TO HEAT.] Ztschr. f. Angew. Ent. 4 (1): 34–70, illus. 1917. 421 Z36

Description of extensive experiments.—Abs. in Rev. Appl. Ent., B 8:120. 1920.

MIESSNER, H., and LANGE, W. (183)

DESINFEKTION MIT HEISSER PRESSLUFT IN DEM VONDRAN'SCHEN APPARAT. [DISINFECTION WITH HOT, COMPRESSED AIR IN THE VONDRAN APPARATUS.] Arch. f. Wiss. u. Prakt. Tierheilk. 43(4/5): 329–365, illus. Sept. 13, 1917. 41.8 Ar2

Results of use of blast of dry hot air, electrically heated.—Abs. in Rev. Appl. Ent., B 5: 177. 1917.

NICOLL, W. (184)
THE CONDITIONS OF LIFE IN TROPICAL AUSTRALIA. Jour. Hyg. [London] 16 (3): 269–290. December 1917. 449.8 J82
Mentions occurrence of *Phthirus pubis*, *Pediculus humanus* and *P. capitis*.—Abs. in Rev. Appl. Ent., B 6: 62. 1918.

NUTTALL, G. H. F. (185)
BIBLIOGRAPHY OF PEDICULUS. INCLUDING ZOOLOGICAL AND MEDICAL PUBLICATIONS DEALING WITH HUMAN LICE, THEIR ANATOMY, BIOLOGY, RELATION TO DISEASE, ETC., AND PROPHYLACTIC MEASURES DIRECTED AGAINST THEM. Parasitology 10 (1): 1–42. Nov. 29, 1917. 448.8 P21
Lists 639 publications.

——— (186)
THE BIOLOGY OF PEDICULUS HUMANUS. Parasitology 10 (1): 80–185, illus. Nov. 29. 1917. 448.8 P21
Abs. in Rev. Appl. Ent., B 6: 19. 1918.

——— (187)
THE PART PLAYED BY PEDICULUS HUMANUS IN THE CAUSATION OF DISEASE. Parasitology 10 (1): 43–79. Nov. 29, 1917. 448.8 P21
Abs. in Rev. Appl. Ent., B 6: 19. 1918.

——— (188)
STUDIES ON PEDICULUS. I. THE COPULATORY APPARATUS AND THE PROCESS OF COPULATION IN PEDICULUS HUMANUS. Parasitology 9 (2): 293–324, illus. February 1917. 448.8 P21
Abs. in Rev. Appl. Ent., B 5: 70. 1917.

OBERMILLER. (189)
DIE VLEMINGKXSCHE LÖSUNG ALS GUTES KRÄTZE- UND LÄUSEMITTEL. Deut. Med. Wchnschr. 43 (8): 239–240. Feb. 22, 1917. 448.8 D48
Formula given: "Calcar. ust. 1 Teil wird mit Wasser zu Pulver gelöscht, dann mit Flor. sulfur. 2 Teilen und Wasser 20 Teilen in einer Porzellanschale oder einfachen Emailleschüssel unter Umrühren gekocht, bis man 12 Teile durchgeseihte oder klar abgegossene Flüssigkeit erhält."

OLITSKY, P. K., DENZER, B. S., and HUSK, C. E. (190)
THE ISOLATION OF THE BACILLUS TYPHI-EXANTHEMATICI FROM THE BODY LOUSE. Amer. Med. Assoc. Jour. 68 (16): 1165–1168. Apr. 21, 1917. 448.9 Am 37
Abs. in Rev. Appl. Ent., B 6: 213. 1918.

———DENZER, B. S., and HUSK, C. E. (191)
REPORT OF AN EXPEDITION TO MEXICO IN 1916. [STUDIES IN TYPHUS FEVER.] Med. Rec. 91 (7): 300. Feb. 17, 1917. 448.8 M461

OLLÉ, and DAVIZÉ, G. (192)
ÉTUVE À SULFURATION DÉMONTABLE ET TRANSPORTABLE. Arch. de Méd. et de Pharm. Mil. [Paris] 47: 578–580. 1917.
Demountable and transportable stove for sulfuration.

PARKER, R. (193)
THE TREATMENT OF SCABIES AND PEDICULOSIS. [Letter.] Brit. Med. Jour. 1917, 2 (2956): 275. Aug. 25, 1917. 448.8 B77
"Against pediculi liquor hydrargyri perchloridi quickly kills the living parasites, and spirit washes off the nits, both in very brief time."

PIERCE, C. C. (194)
COMBATING TYPHUS FEVER ON THE MEXICAN BORDER. U. S. Pub. Health Serv. Rpts. 32 (12): 426–429, illus. Mar. 23, 1917. 151.65 P96
Methods of treating immigrants before they are allowed to enter this country.—Abs. in Rev. Appl. Ent., B 5: 132–133. 1917.

PIZZINI, L. (195)
I PIDOCCHI NELLA EPIDEMIOLOGIA DELLA MENINGITE CEREBROSPINALE EPIDEMICA. [LICE IN THE EPIDEMIOLOGY OF EPIDEMIC CEREBRO-SPINAL MENINGITIS.] Policlinico, Sez. Med. 24 (5): 212–228. May 1, 1917.
Observations on 77 patients; individuals infested with lice the most frequent sufferers.—Abs. in Rev. Appl. Ent., B 5: 152. 1917.

ROCHA-LIMA, H. DA. (196)
KLINIK UND AETIOLOGIE DES SOGEN. "WOHLHYNISCHEN FIEBERS" (WERNERHISSCHE KRANKHEIT). II. ERGEBNIS DER ÄTIOLOGISCHEN UNTERSUCHUN-

GEN UND DEREN BEZIEHUNGEN ZUR FLECKFIEBERFORSCHUNG. [THE CLINICAL ASPECTS AND AETIOLOGY OF THE SO-CALLED "VOLHYNIAN FEVER" (HIS-WERNER'S DISEASE). II. THE RESULT OF THE AETIOLOGICAL INVESTIGATIONS AND THEIR RELATION TO THE INVESTIGATION OF TYPHUS.] München. Med. Wchnschr. 64 (44): 1422–1426, illus. Oct. 30, 1917. 448.8 M92

Results of examination of several thousand sections of lice.—Abs. in Rev. Appl. Ent., B 6: 58. 1918.

RUSCH. (197)

PHTHIRII IN DEN AUGENBRAUEN EINES KINDES. [PEDICULOSIS IN THE EYEBROWS OF CHILDREN.] Wien. Klin. Wchnschr. 30: 767. 1917.

SASSE, A. (198)

ENTLAUSUNGSANLAGE IN EINER ZUCKERFABRIK. Berlin. Klin. Wchnschr. 54 (39): 945–946. Sept. 24, 1917. 448.8 B45

How a sugar factory for processing sugar beets was converted into a delousing establishment for use of troops at the front. Bathing facilities and apparatus for steam disinfection of clothing were provided.

SEEL, E., VÖHRINGER, E., and WÜNSCH, A. (199)

UEBER ENTLAUSUNGSMITTEL. Deut. Pharm. Gesell. Ber. 27 (1): 11–18. 1917. 396.9 D48

Lists the requirements of a good insecticide, then the numerous ones in use with the composition, advantages and disadvantages of each.

SIKORA, H. (200)

ÜBER ANPASSUNG DER LÄUSE AN IHRE UMGEBUNG. [THE ADAPTATION OF LICE TO THEIR SURROUNDINGS.] Arch. f. Schiffs u. Tropen Hyg. 21 (10): 172–173. May 1917. 449.8 Ar22

The adaptation of lice to the color of their surroundings is confirmed.—Abs. in Rev. Appl. Ent., B 6: 55. 1918.

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ZUR KLEIDERLAUS-KOPFLAUSFRAGE. [THE BODY- AND HEAD-LOUSE QUESTION.] Arch. f. Schiffs u. Tropen Hyg. 21 (16): 275–284. September 1917. 449.8 Ar22

Discussion of differences between *Pediculus humanus* and *P. capitis*.—Abs. in Rev. Appl. Ent., B 6: 191. 1918.

SOUÈGES, R., and RONDEAU DU NOYER, M. (202)

LES POUX; LE MAL QUE QU'ILS NOUS CAUSENT; COMMENT LES COMBATTRE. Bul. des Sci. Pharmacol. 24: 167–186, 224–240, 303–316. 1917. 396.8 B872

Among the many control measures given are: Heat, sulfur, ammonia, alkali wash, mercury, petrol, chloroform, carbon tetrachloride, iodoform, benzene, xylene, globol or paradichlorobenzene, naphthalene, alcohol, phenol, anisol, cresol, lysol, camphor, lausofane, methylene blue.

SPAETHE. (203)

HYGIENE IM FELDE MIT BESONDERER BERÜCKSICHTIGUNG DER ENTLAUSUNG. Ztschr. f. Aertzl. Fortbild. 14 (1, 2): 7–13, 37–41, illus. Jan. 1, 15, 1917.

Mainly descriptions of apparatus for steam and hot air disinfection of clothing and of louse-proof garments for wearing by personnel of delousing stations.

STEUDEL. (204)

FRAKTIONIERTE ENTLAUSUNG. [LOUSE ERADICATION IN SUCCESSIVE STAGES.] München. Med. Wchnschr. 64 (42): 1373–1375. Oct. 15, 1917. 448.8 M92

Bathing the men and passing clothing through heating apparatus at 14-day intervals on several occasions are recommended for a division or entire army.—Abs. in Rev. Appl. Ent., B 6: 76. 1918.

SUSSMANN, O. (205)

LAUSOL LANG, EIN NEUES LÄUSEABTÖTUNGSMITTEL. München. Med. Wchnschr. 64 (6): 204–206. Feb. 6, 1917. 448.8 M92

A solution of solid hydrocarbons (naphthalene) in the presence of a larger quantity of volatile hydrocarbon chlorates, to which are added small quantities of carbon disulfide and a small quantity of a bitter principle (aloe) in an alcoholic solution, for the acceleration of the effect in special cases.—

SWELLENGREBEL, N. H. (206)

QUELQUES REMARQUES SUR LA FAÇON DE COMBATTRE LE POU DES VÊTEMENTS. [SOME REMARKS ON THE CONTROL OF LICE IN CLOTHING.] Arch. Néerland. des Sci. Exact. et Nat. Ser. B, Sci. Nat. 3: 1–31, illus. 1917. 503 H11

Translation of *his* Eenige Opmerkingen over de Bestrijding der Kleederlinzen, published in Nederland Tijdschr. v. Geneesk. 12: 1734–1759, illus. 1915.

The use of hot air and Rubner's method are recommended: sulfurous anhydride is not recommended; for treating the body acetic acid, creolin and anisol are recommended.—Abs. in Rev. Appl. Ent., B 5: 33–34. 1917.

TARASSEVITCH, L. A., and MARZINOVSKY, E. I. (207)

[RECENT DATA ON THE EPIDEMIOLOGY AND PROPHYLAXIS OF EXANTHEMATOUS TYPHUS.] (In Russian.) Med. Obozr. [Med. Rev. (Moscow)] 87(1/2): 212–213. 1917.

Based on war experiences.—Abs. in Rev. Appl. Ent., B 5: 109. 1917.

TEICHMANN, ERNST. (208)

CYANWASSERSTOFF ALS MITTEL ZUR ENTLAUSUNG. [HYDROCYANIC ACID AS MEANS OF DELOUSING.] Ztschr. f. Hyg. u. Infektionskrank. 83 (3): 449–466. May 3, 1917. 449.8 Z3

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ENTLAUSUNG DURCH CYANWASSERSTOFF. [LOUSE DESTRUCTION BY HYDROCYANIC ACID GAS.] Deut. Med. Wchnschr. 43(10): 303–304. Mar. 8, 1917. 448.8 D48

Results of experiments prove that HCN is satisfactory; its only disadvantage is due to its poisonous nature.—Abs. in Rev. Appl. Ent., B 5: 130. 1917.

UNITED STATES PUBLIC HEALTH SERVICE. (210)

TYPHUS FEVER. MEASURES FOR THE PREVENTION OF ITS INTRODUCTION AT EL PASO, TEX. U. S. Pub. Health Serv. Rpts. 32 (5): 197–198. Feb. 2, 1917. 151.65 P96

Account of the widespread prevalence of typhus throughout Mexico. To prevent its introduction into the United States all incoming passengers at El Paso, Texas, if found to be lousy, are disinfected. Clothing and effects are steamed, and persons are treated with gasoline or a mixture of vinegar and kerosene.

UNNA, P. G. (211)

APHORISMEN. III. ENTLAUSUNG DURCH GLEITPUDER. Dermat. Wchnschr. 64 (12): 281–284. Mar. 24, 1917.

The powder consists of potato starch saturated with ethereal oil and mixed with a very little calcium or magnesium carbonate.

WALDOW. (212)

KURZER BERICHT ÜBER DIE ENTLAUSUNG DURCH SAND. [A SHORT REPORT ON DESTROYING LICE WITH SAND.] Deut. Mil.-Aerztl. Ztschr. 45: 94–96. 1916.

Abs. in Centbl. f. Bakt. [etc.] Abt. I, Referate 65 (19/20): 476. Feb. 13, 1917. 448.3 C33

Infested clothing covered with heated sand. At 110° C. [230° F.] lice are killed in a few minutes.—Abs. in Rev. Appl. Ent., B 6: 173. 1918.

WERNER, H., and BENZLER, J. (213)

ZUR AETIOLOGIE UND KLINIK DER FEBRIS QUINTANA. [THE AETIOLOGY AND CLINICAL SYMPTOMS OF FIVE-DAY FEVER.] München. Med. Wchnschr. 64 (21): 695. May 22, 1917. 448.8 M92

Two cases of infection transmitted by bites of lice.—Abs. in Rev. Appl. Ent., B 6: 56. 1918.

——— and WIESE, O. (214)

DIE UEBERTRAGUNG VON REKURRENSSPIROCHÄTEN DURCH KOPFLÄUSE. [THE TRANSMISSION OF RECURRENT FEVER BY HEAD LICE.] Arch. f. Schiffs u. Tropen Hyg. 21 (8): 139. April 1917. 449.8 Ar22

Abs. in Rev. Appl. Ent., B 6: 54. 1918.

WOLF. (215)

LÄUSESICHERE SCHUTZGEWÄNDER. [LOUSE-PROOF GARMENTS.] Heilanstalt [Leipzig] 12: 62, 69. 1917.

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ANONYMOUS. (216)

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VERSUCHE ÜBER DIE VERWENDBARKEIT DES HOLZESSIGS ALS ERSATZ FÜR DEN SABADILLAESSIG BEI DER LÄUSEBEKÄMPFUNG. [EXPERIMENTS ON THE USE OF WOOD VINEGAR AS A SUBSTITUTE FOR SABADILLA VINEGAR IN COMBATTING LICE.] Reichsgsndhtsamt. Arb. 52 (3): 554–572. 1920.
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Mandoul, H. (380)

LA PÉDICULOSE ET LA GALE AUX ARMÉES (1915–1916); NOTES SUR LEUR FRÉQUENCE, LEUR RÔLE DANS LA GENÈSE DES INFECTIONS CUTANÉES, L'ÉTIOLOGIE ET LA PROPHYLAXIE. Rev. d'Hyg. 42 (2/3): 156–168. February–March 1920. 449.8 R32

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EXPERIMENTS ON THE TOXIC ACTION OF CERTAIN GASES ON INSECTS, SEEDS, AND FUNGI. U. S. Dept. Agr. Bul. 893, 16 pp. Washington, D. C. 1920. 1 Ag84B

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ON AN OUTBREAK OF RELAPSING FEVER IN TURKEY IN 1918. Indian Med. Gaz. 55 (6): 208–217. June 1920.

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CONTRIBUTION À LA CONNAISSANCE DE L'ÉVOLUTION DES SPIROCHÈTES DE LA FIÈVRE RÉCURRENTE CHEZ LE POU. (ÉTUDE DES COUPES EN SÉRIE). Inst. Pasteur de Tunis. Arch. 11 (3): 131–137. February 1920. 448.3 In72

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LE POUVOIR INFECTANT DES CROTTES DE POUX PRÉALABLEMENT INOCULÉS DE VIRUS TRACHOMATEUX. Soc. de Path. Exot. Bul. 31 (1): 22–23. Jan. 12, 1938. 448.9 So13

Pediculus humanus, L.—Abs. in Rev. Appl. Ent., B 26: 106–107. 1938.

DUGUET, J. (768)
LA CONTAGION DU TRACHOME CHEZ L'ADULTE: RICKETTSIA ET TRACHOME. Soc. de Méd. Mil. Franç. Bul. Mens. 32: 400–402. October 1938.

Contagion of trachoma in adult; *Rickettsia* of lice as possible agent.

EWING, H. E. (769)
SUCKING LICE OF AMERICAN MONKEYS. Jour. Parasitol. 24 (1): 13–33. February 1938. 448.8 J824

A study of characteristics and possible origins, with comparisons and contrasts of monkey lice and human lice. Nothing on control.

György, P. (770)

PEDICULOSIS IN RATS KEPT ON A RIBOFLAVIN-DEFICIENT DIET. Soc. Expt. Biol. and Med. Proc. 38 (3): 383–385. April 1938. 442.9 So1

Fundamental work although not on human lice.

Chronic riboflavin deficiency in rats is often accompanied by pediculosis. Administration of riboflavin by mouth has a curative effect.

Jordan, E. O. (771)

A TEXTBOOK OF GENERAL BACTERIOLOGY. Ed. 12, 808 pp., illus. Philadelphia and London, W. B. Saunders Co. 1938. 448.2 J76

Ed. 13, 1941 (with William Burrows), 731 pp.

Jordon, J. H., and Fletcher, A. E. (772)

NOTE ON DISINFESTATION, WITH PARTICULAR REFERENCE TO TYPHUS. Chinese Med. Jour. 54 (1): 71–72. July 1938. 448.8 C44

Experiments with a liquid disinfectant containing phenols, cresylic acids, naphthalene and nitrogen bases, combined with ammonia which is essential.

Kirk, R. (773)

A LABORATORY STUDY OF ABYSSINIAN LOUSEBORNE RELPASING FEVER. Ann. Trop. Med. and Parasitol. 32 (4): 339–356, illus. Dec. 21, 1938. 448.9 L75A.

Abs. in Rev. Appl. Ent., B 27: 129. 1939.

Kubo, Michio. (774)

THE SEXUAL ORGANS OF PHTHIRUS PUBIS LEACH, 1815 WITH SPECIAL REFERENCE TO THE COPULATORY APPARATUS. Chinese Med. Jour. Sup. 2: 545–554, illus. March 1938. 448.8 C44

Lebailly, C. (775)

MÉTHODES D'ÉPOUILLAGE RAPIDES ET ÉCONOMIQUES. Inst. Pasteur de Tunis. Arch. 27 (1): 123–125, illus. March 1938. 448.3 In72

Rapid, economical method of delousing individuals by use of sulfurous anhydride fumes in a specially constructed cabinet; lice killed after 20-minute exposure.

Patzsch, Herbert. (776)

DIE ENTLAUSUNG IM FRANZOSISCHEN HEERE. Med. Welt 12 (12): 433–434. Mar. 19, 1938.

Delousing in the French Army. Description of bathing establishment where clothing and equipment are disinfected by steam.

Pazzini, A. (777)

IL "MORBUS PEDICULARIS." Ann. d'Ig. [Rome] 48 (9/10): 597–605. September/October 1938. 449.8 An72

Pediculosis. Historical account.

Riley, W. A., and Johannsen, O. A. (778)

MEDICAL ENTOMOLOGY; A SURVEY OF INSECTS AND ALLIED FORMS WHICH AFFECT THE HEALTH OF MAN AND ANIMALS. Ed. 2, 483 pp., illus. New York and London, McGraw-Hill Book Co., Inc. 1938. 422 R452M

Ch. X, Anoplura, or Lice, pp. 125–142.

Skinner, G. A. (779)

PARASITE TRICKS, VII. THE LOATHESOME LOUSE, THRIVING ON HUMAN MISERY, BRINGS DISCOMFORT, DANGER AND DISEASE. Hygeia [Chicago] 16 (9): 821–824, 861–862. September 1938. 449.8 H993

Smit, B. (780)

THE CONTROL OF HOUSEHOLD INSECTS IN SOUTH AFRICA. So. Africa Dept. Agr. Bul. 192 [Plant Indus. Ser. No. 35], 52 pp., illus. Pretoria. 1938. 24 So84P

Includes *Pediculus humanus*, L. and *Phthirus pubis*, (L.)—Abs. in Rev Appl. Ent., B 28: 21. 1940.

Starzyk, Jan. (781)

VITALITÉ, VIRULENCE ET POUVOIR IMMUNISANT DE RICKETTSIA PROVAZEKI, CONSERVÉS EN DEHORS DE L'ORGANISME DU POU. Inst. Pasteur de Tunis. Arch. 27 (3): 263–281, illus. September 1938. 448.3 In72

Period of survival determined by inoculation of material into fresh lice [*Pediculus humanus* L.] and inoculation of these lice into guinea pigs.—Abs. in Rev. Appl. Ent., B 27: 60–61. 1939.

Thomann, J. (782)
RAPPORT FINAL SUR L'ÉPOUILLAGE DES TROUPES DANS LA ZONE DE L'AVANT. Rev. Internatl. de la Croix-Rouge 20 (229): 35–62, illus. January 1938.
Delousing of troops at the front. Procedure includes bathing, shaving, application of depilatories and acetic tincture of sabadilla, petroleum emulsions, xylol, or oil of turpentine. For pubic lice, van Swieten's solution (alcoholic solution of mercuric chloride) with 20% vinegar added is recommended, and also a pomade composed of lanolin vaseline, and 20% xylol. Includes a description of apparatus for steam disinfection of clothing and for fumigation with sulfuric-acid gas, ethylene oxide, and hydrocyanic acid gas.

Wang, Lo-shan. (783)
THE ACTION OF PAIPU, STEMONA TUBEROSA, ON LICE. Chinese Med. Jour. 54 (2): 151–158. August 1938. 448.8 C44
A plant long used as an insecticide by the Chinese. Experiments show that the alcoholic solution of the drug is very effective for killing body lice, pubic lice and the lice of animals; it is nontoxic, nonirritant, and kills the eggs.—Abs. in Rev. Appl. Ent., B 27: 61. 1939.

Armand-Delille, P. F. (784)
LA PROPHYLAXIE DU TYPHUS EXANTHÉMATIQUE DANS LES ARMÉES EN CAMPAGNE; RÔLE DES GROUPES BAINS-DOUCHES-DÉSINSECTISATION. Presse Méd. [Paris] 47 (75): 1383–1384. Oct. 4, 1939. 448.8 P92
Prophylaxis of exanthematous typhus during military campaigns; role of combined shower bath and disinsectization method.

Auden, G. A. (785)
THE LOUSE IN LITERATURE. Med. Off. 62 (23): 217–218. Dec. 2, 1939. 448.8 M462.

Bertazzi, C. G. (786)
ASPETTICLINICI E CONSIDERAZIONI SULLA FEBBRE RICORRENTE DA PIDOCCHIO LORO IMPORTANZA PRATICA. Minerva Med. [Turin] anno 30, 2 (46): 459–460. Nov. 17, 1939.
Transmission of relapsing fever by lice.

Bonjean, M., and Charnot, A. (787)
LA DÉSINSECTISATION RAPIDE DES VÊTEMENTS PAR L'ACIDE CYANHYDRIQUE. Inst. d'Hyg. Maroc. Bul. 1939 (1/2): 5–11, illus.
Also in Jour. de Méd. de Paris 60: 255–257. June/July 1940.
Fumigation of clothing with HCN.—Abs. in Rev. Appl. Ent., B 28: 129–130. 1940.

Braley, A. E. (788)
RICKETTSIA QUESTION IN TRACHOMA; LOUSE AS POSSIBLE DISSEMINATING AGENT FOR VIRUS. Arch. Ophth. 22 (2): 262–270. August 1939. 448.8 Ar291

Brisard, C. (789)
PEDICULI VESTIMENTI. [CLOTHES LICE.] Ann. de Méd. Lég. 19: 694–695. November/December 1939.

Buxton, P. A. (790)
THE LOUSE. AN ACCOUNT OF THE LICE WHICH INFEST MAN, THEIR MEDICAL IMPORTANCE AND CONTROL. 115 pp., illus. London, E. Arnold & Co. 1939. 431.3 B98
Abs. in Rev. Appl. Ent., B 27: 252. 1939.
Reviewed by G. W. Cadbury, 3d, in Ent. News 52: 88–90. March 1941. 421 En 88

Castellani, Aldo, and Chalmers, A. J. (791)
MANUAL OF TROPICAL MEDICINE. Ed. 3, 2436 pp., illus. London, Baillière, Tindall and Cox. 1939. 448 C27
Order Anoplura, pp. 752–760: The relapsing fevers, pp. 1308–1325; Typhus, pp. 1326–1340.

Hase, A. (792)
METHODEN DER ZÜCHTUNG VON WANZEN, LÄUSEN UND FLÖHEN. [METHODS OF BREEDING BUGS, LICE AND FLEAS.] *In* Kolle, W., and others. Handbuch der Pathogenen Mikroorganismen, ed. 3, bd. 10, lfg. 37, pp. 591–616, illus. Jena, Gustav Fischer. 1939. 448.2 K83

——— and Reichmuth, W. (793)
LÄUSEBEKÄMPFUNG. Ztschr. f. Hyg. Zool. u. Schädlingsbekämpf. 31 (9/10): 267–274. September/October 1939. 449.8 Z36
Deals with the life history, biology and control of human lice.

HERCZFELD, L. E. (794)
UJ MAGYAR KISZITMÉNY PEDICULOSIS CAPITIS ELLEN. [NEW HUNGARIAN PREPARATION AGAINST PEDICULOSIS CAPITIS.] Gyógyászat 79 (33–34): 466–467. Aug. 13, 1939.

HERMS, W. B. (795)
MEDICAL ENTOMOLOGY. Ed. 3, 582 pp., illus. New York, The Macmillan Co. 1939. 422 H422M
Ch. IX, The Lice, pp. 104–132.

HERZIG, ANNA. (796)
EINE NEUE RICKETTSIA-SPEZIES DER LAUS, DER ERREGER EINER SPONTAN AUFGETRETENEN EPIDEMISCHEN ERKRANKUNG DES MENSCHEN. [A NEW RICKETTSIA OF THE LOUSE, THE AGENT CAUSING A SPONTANEOUS EPIDEMIC DISEASE OF MAN.] Zentbl. f. Bakt. [etc.] Abt. I, Originale 143 (5/6): 299–302. Mar. 30, 1939. 448.3 C33
Abs. in Rev. Appl. Ent., B 28: 109. 1940.

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UNTERSUCHUNGEN ÜBER RICKETTSIA PEDICULI. Zentbl. f. Bakt. [etc.] Abt. I, Originale 143 (5/6): 303–305. Mar. 30, 1939. 448.3 C33
Abs. in Rev. Appl. Ent., B 28: 109–110. 1940.

HOFFMANN, W. (798)
KRANKENHÄUSER UND KRIEGSSEUCHEN. ENTLAUSUNG UND DESINFEKTION. Ztschr. f. die Gesam. Krankenhausw., Oct. 24, 1939, p. 465; Nov. 7, 1939, p. 494.
Hospitals and war epidemics; delousing and disinfection.

[HUNGARY. MAGYAR KIRÁLYI. BELÜGYMINISTERIUM.] (799)
[ORDER FOR PREVENTION OF PEDICULOSIS.] Népegészségügy [L'Hygiene Publique] 20 (2): 53–58. Jan. 15, 1939.

KIRK, R. (800)
THE EPIDEMIOLOGY OF RELAPSING FEVER IN THE ANGLO-EGYPTIAN SUDAN. Ann. Trop. Med. and Parasitol. 33(2): 125–140, illus. July 20, 1939. 448.9 L75A
Relapsing fever transmitted by *Pediculus humanus.*—Abs. in Rev. Appl. Ent., B 28: 14. 1940.

MCCORMACK, J. D. (801)
TYPHUS FEVER IN THE TOWN OF DROGHEDA. Eire Dept. Local Govt. and Pub. Health. Rept. 1939/40, App. XIII, pp. 136–137.
Typhus perhaps due to infection from dried louse faeces.—Abs. in Trop. Dis. Bul. 39: 138. 1942. 448.8 T752

MARTINI, E., and ECKSTEIN, F. (802)
MEDIZINISCH WICHTIGE INSEKTEN. MERKBLATT 1. LÄUSE. Arch. f. Schiffs-u. Tropen Hyg. 43 (11): 523–530, illus. November 1939. 449.8 Ar22
Hygienic and epidemiologic aspects of pediculosis.

ONO, Z. (803)
[ON INSECTS OF HYGIENIC IMPORTANCE IN SHINKYO AND ITS ENVIRONS, MANCHURIA.] (In Japanese.) [Ent. World] Tokyo 7 (59): 4–11. 1939.
Pediculus humanus, L. is common.—Abs. in Rev. Appl. Ent., B 27: 108–109. 1939.

PATINO CAMARGO, L. (804)
BARTONELLOSIS DEL GUÁITARA O FIEBRE VERRUCOSA DEL GUÁITARA. Rev. de Hig. [Bogotá] 20 (4): 4–37. April 1939.
Pediculus spp. were collected by the author in the epidemic zone. Experiments with 187 specimens of *P. vestimenti* seemed to prove the human louse to be a vector.

PETERS, G., and GANTER, W. (805)
ENTLAUSUNG MIT BLAUSÄURE. [FUMIGATION WITH HYDROCYANIC ACID.] Ztschr. f. Hyg., Zool. u. Schädlingsbekämpf. 31 (12): 317–325, illus. December 1939.
"The abs. sensitivity of lice, louse larvae and louse eggs to HCN, the effect of temp., the lowest concn. and shortest treatment time in auxiliary and permanent fumigating plants are discussed."—Chem. Abs. 35(19): 6691. Oct. 10, 1941.

PSHENICHNOV, A. V. (806)
THE EXCRETA OF LICE INFECTED WITH SPOTTED TYPHUS AS A SOURCE OF THE TRANSMISSION OF THE VIRUS PER OS FROM DISEASED TO HEALTHY LICE.

SUMMARIES OF REPORTS OF THE ALL-UNION CONFERENCE OF WORKERS IN MICROBIOLOGY, EPIDEMIOLOGY AND INFECTIOUS DISEASES. MOSCOW, 25TH–31ST JANUARY 1939. (In Russian.) pp. 124–125. Moscow, Medgiz. 1939.

Abs. in Rev. Appl. Ent., B 27: 241. 1939.

RAYNAL, J., and FOURNIER, J. (807)

LE TYPHUS EXANTHÉMATIQUE DE CHANG-HAÏ. Soc. de Path. Exot. Bul. 32 (6): 636–643. June 13, 1939. 448.9 So13

Louse-borne typhus.—Abs. in Rev. Appl. Ent., B 28: 13–14. 1940.

RUIZ CASTAÑEDA, M. (808)

EL TIFO DE ZACOALCO. [TYPHUS IN ZACOALCO.] Medicina, Mexico 19 (345): 301–303. Aug. 10, 1939.

A mild form of typhus, previously considered clinically as a form of typhoid fever, is described. Since *Pediculus capitis* was present, it is possible that transmission may occur through lice.—Abs. in Trop. Dis. Bul. 36 (12): 994–995. December 1939.

SANDOZ, L. A. (809)

SCABIES, BODY LICE AND TICKS. Ind. Med. Assoc. Jour. 32: 308–311. June 1939.

SCHMIDT, W. J. (810)

UEBER PHYSIKALISCHE UND CHEMISCHE EIGENSCHAFTEN DES SEKRETES, MIT DEM PEDICULUS CAPITIS SEINE EIER ANKITTET. [THE PHYSICAL AND CHEMICAL QUALITIES OF THE SECRETION WITH WHICH P. HUMANUS CAPITIS, DEG., ATTACHES ITS EGGS.] Ztschr. f. Parasitenk. 10 (6): 729–736, illus. Apr. 21, 1939. 442.8 Z33F

SEARLS, E. M., and SNYDER, F. M. (811)

A STUDY OF THE RELATION OF VITAMIN A TO LOUSE RESISTANCE IN RATS. Jour. Parasitol. 25 (5): 425–430. October 1939. Bibliography, p. 430. 448.8 J824

Fundamental work although not on human lice. Laboratory experiments found that rats which received an abundance of vitamin A were uniformly free from lice despite several attempts to colonize lice upon them.

SHUKHAT, I. A., and REVICH, E. I. (812)

LA TECHNIQUE DE LA CULTURE DES POUX AU LABORATOIRE POUR LES TRAVAUX EXPÉRIMENTAUX SUR LE TYPHUS EXANTHÉMATIQUE. (In Russian with French summary.) Med. Parasitol. and Parasitic Dis. 8 (1): 141–144. 1939. 448.8 M469

Abs. in Rev. Appl. Ent., B 27: 222. 1939.

SPARROW, HÉLÈNE. (813)

INFECTION SPONTANÉE DES POUX [PEDICULUS HUMANUS, L.] D'ÉLEVAGE PAR UNE RICKETTSIA DU TYPE RICKETTSIA ROCHA LIMAE. Inst. Pasteur de Tunis. Arch. 28 (1): 64–73. March 1939. 448.3 In72

Slightly shorter version in Soc. de Path. Exot. Bul. 32(3): 310–316. 1939. 448.9 So13

——— and MARESCHAL, PIERRE. (814)

RÉACTION DE L'ORGANISME HUMAIN À L'INOCULATION DES RICKETTSIAS DU VIRUS TYPHIQUE MURIN I DE TUNIS. Rev. Immunol. [Paris] 5 (5): 469–475. 1939.

"Subcutaneous injections of rickettsiae of murine typhus in doses corresponding to 1/1,000, 1/1,000,000 and 1/1,000,000,000 of a louse intestine produced no reactions or any immunity in the human beings tested. An 1/100 intestine dose caused inapparent typhus with a positive Weil-Felix reaction and immunity. Likewise the doses equivalent to 1/10 and to 1 intestine also gave positive results. . ."—Abs. in Biol. Abs. 14 (3): 481, item 5074. March 1940.

VIALLEFONT, H. (815)

UN CAS DE PÉDICULOSE CILIAIRE. Soc. des Sci. Méd. et Biol. de Montpellier. Arch. 20: 25–26. February 1939.

ZINSSER, HANS, and BAYNE-JONES, STANHOPE. (816)

A TEXTBOOK OF BACTERIOLOGY. Ed. 8, rev. and reset, 990 pp., illus. New York, London, D. Appleton-Century Co. [1939]. 448.2 H62

Sect. IV, The Rickettsia Diseases, pp. 653–682.

1940

Anonymous. (817)

PEDICULOSIS IN EVACUATED CHILDREN. Brit. Med. Jour. 1940, 2 (4162): 494–495. Oct. 12, 1940. 448.8 B77

Editorial discussion of recent work. The proportion of London school children who could be described as clean was 88 percent in 1926, and now 97 percent or over.

Barlovatz, A. (818)

TYPHUS EXANTHÉMATIQUE DE FORÊT AU CONGO. (With English summary.) Soc. Belge Méd. Trop. Ann. 20 (1): 23–40, illus. 1940. 448.9 So15

Observations indicate that the vector is the body louse [*Pediculus humanus corporis*].—Abs. in Rev. Appl. Ent., B 28: 178. 1940.

Bolduirev, T. E. (819)

[HYDROGEN SULPHIDE AS A DISINFECTANT AND INSECTICIDE.] (In Russian.) Kuibyshev Mil. Acad. Red Army. Trans. 1940, v. 4, pp. 13–61.

Details are given of experiments with lice. H_2S is recommended for insecticidal use in the army when the time element permits proper ventilation of clothing after fumigation.—Abs. in Bul. War Med. 3: 181–182. 1942.

Brun, T. M. (820)

[FLORA OF THE INTESTINE OF THE LOUSE.] (Text in Russian.) Jour. de Microbiol., d'Epidemiol. et d'Immunobiol. [Moscow] 1940 (4): 107–108. 1940.

Cocci were usually found together with *Rickettsia* in the intestines of lice infected with typhus by rectal injections.

Buxton, P. A. (821)

THE BIOLOGY OF THE BODY LOUSE (PEDICULUS HUMANUS CORPORIS: ANOPLURA) UNDER EXPERIMENTAL CONDITIONS. Parasitology 32 (3): 303–312. August 1940. 448.8 P21

Abs. in Rev. Appl. Ent., B 28: 235–236. 1940.

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THE CONTROL OF LICE. Brit. Med. Jour. 1940, 2 (4165): 603–604. Nov. 2, 1940. 448.8 B77

Controls mentioned are: N. C. I. (96% naphthalene, 2% creosote, 2% iodoform), the two formulae of Craufurd-Benson and Macleod, AL. 16 and AL. 63, and heat for blankets and clothing.—Abs. in Rev. Appl. Ent., B 29: 117. 1941.

Reviewed in Nature [London] 147: 85. Jan. 18, 1941.

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THE LOUSE: PRESENT KNOWLEDGE AND FUTURE WORK. Roy. Soc. Trop. Med. and Hyg. Trans. 33 (4): 365–379, illus. January 1940. 448.9 R813

Information taken from *his* recent book, The Louse.

——— (824)

STUDIES ON POPULATIONS OF HEAD-LICE (PEDICULUS HUMANUS CAPITIS: ANOPLURA). III. MATERIAL FROM SOUTH INDIA. Parasitology 32 (3): 296–302. August 1940. 448.8 P21

Abs. in Rev. Appl. Ent., B 28: 234. 1940.

——— (825)

TEMPERATURES LETHAL TO LOUSE. Brit. Med. Jour. 1940, 1 (4130): 341. Mar. 2, 1940. 448.8 B77

"The lowest temperature which kills all lice . . . is 51.5° C. for five minutes, 49.5° C. for ten to thirty minutes, and 46° C. for forty-five minutes to one hour." Results of experiments with eggs are also given.

Chandler, A. C. (826)

INTRODUCTION TO PARASITOLOGY. Ed. 6, 698 pp. New York, J. Wiley & Sons, Inc. 1940. 448 C362

Ch. 23, Lice (Anoplura and Mallophaga), pp. 522–540.

Great Britain Ministry of Health. (827)

MEMORANDUM ON THE LOUSE AND HOW TO DEAL WITH IT. 12 pp. London, H. M. Stationery Off. 1940. (Memo. 230/Med.) 431.3 G79

Naphthalene is recommended as the most useful repellent. It is best applied in the form of a paste consisting of crude unwhizzed naphthalene, 90 percent, and potash soap, 10 percent. For treating body lice, an emulsion of 3 parts of paraffin in 7 parts of olive oil or a mixture of cresol and soft soap is recommended; for head lice, a mixture of paraffin and olive oil; for crab lice, calomel pomade (HgCl one part, vaseline 20 parts).

GROOT, HERNANDO, MAYORAL, PEDRO, and MARTINEZ, L. E. (828)
DIAGNÓSTICO Y PROFILAXIS DEL TIFO EXANTEMÁTICO EN NARIÑO. [THE DIAGNOSIS AND PREVENTION OF TYPHUS FEVER IN NARIÑO.] Nariño, Colombia, Lab. de Hig. Pub. 1940–41, pp. 63–116, illus., map. References.

Preventive measures against typhus are discussed. Since the incubation period may last 23 days, all persons in contact with patients within that period must be deloused and kept under observation. Clothing should receive a preliminary disinfestation by hermetically sealing it for one hour in a receptacle with 50 cc. of petrol or benzene. It may then be sent for complete disinfestation. Attendants should wear rubber gloves and blouses, and rub their legs with a mixture of 20 grams camphor in 200 cc. oil.—Abs. in Trop. Dis. Bul. 39: 678–679. October 1942.

HARVEY, W. C., and HILL, HARRY. (829)
INSECT PESTS. 292 pp., illus. London, H. K. Lewis & Co., Ltd. 1940. 423 H263

Includes a chapter on *Pediculus humanus* and *Phthirus pubis*, and their control by fumigation.

Abs. in Rev. Appl. Ent., B 28: 149. 1940.

HOEPPLI, R., and CH'IANG, I-HUNG. (830)
THE LOUSE, CRAB-LOUSE AND BEDBUG IN OLD CHINESE MEDICAL LITERATURE WITH SPECIAL CONSIDERATION OF PHTHIRIASIS. Chinese Med. Jour. 58 (3): 338–362, illus. September 1940. 448.8 C44

Contains detailed reviews of information in Chinese literature since about 600 A. D. and brief accounts of results of experiments with some of the methods there recommended for control. A powder composed of equal parts of *Stemona tuberosa* and *Justicia gendarussa* gave complete kill of *Pediculus humanus* in less than 5 minutes.—Abs. in Rev. Appl. Ent., B 29: 60. 1941.

HOLMES, W. H. (831)
BACILLARY AND RICKETTSIAL INFECTIONS ACUTE AND CHRONIC. 676 pp. New York, The Macmillan Co. 1940. 448 H73

Typhus fever, pp. 55–74; Trench fever, pp. 76–77.

JØRGENSEN, GUSTAV. (832)
PEDICULOSIS CAPITIS TREATED WITH SPIRITS OF QUASSIA. Lancet [London] 238 (6089): 909. May 11, 1940. 448.8 L22

KEMPER, H. (833)
UEBER LÄUSEBEKÄMPFUNGS-LEHRGÄNGE. Ztschr. f. Hyg. u. Infektionskrank. 32 (7–8): 138–143. July–August 1940. 449.8 Z36

The author states that the louse problem is a notorious accompaniment to war, and describes a course of study which he was to give on control measures, and discusses current methods.

LIU, WEI-T'UNG, and ZIA, S. H. (834)
TYPHUS RICKETTSIA ISOLATED FROM MICE AND MOUSE-FLEAS DURING AN EPIDEMIC IN PEIPING. Soc. Expt. Biol. and Med. Proc. 45 (3): 823–826. December 1940. 442.9 So1

Typhus transmitted from mice to man by fleas (*Leptopsylla segnis*, Schönh.), then from man to man by lice (*Pediculus humanus*, L.).

MACCORMAC, H. (835)
WAR-TIME DISEASES OF THE SKIN. Practitioner 144: 165–173. February 1940. Includes pediculosis.

MCDANIEL, E. I. (836)
HUMAN LICE. Mich. State Col. Ext. Bul. 210, 2 pp. East Lansing. June 1940.

MARIANI, G. (837)
CARATTERISTICHE DEL CEPPO ETIOPICO DI RICKETTSIA ROCHA-LIMAE. [CHARACTERISTICS OF THE ETHIOPIAN STRAIN OF R. ROCHA-LIMAE.] Ann. d'Ig. [Rome] 50 (2): 59–66. 1940.

"The diffusion of *R. rocha-limae* on the Ethiopian plateau has been established. Lice were studied for presence of the organism. . . Natural spread of infection among lice is at a minimum during first 9 days of their life and then rises rapidly till the 26th day when 25–30% are infected. Apparently the organism is not pathogenic for man (subcut. injns. of varying doses)."—Biol. Abs. 15(10): 2227, item 23925. December 1941.

MARIANI, G. (838)
RICKETTSIA PROWAZEKI, PEDICULI, ROCHA-LIMAE NEI PIDOCCHI RACCOLTI NEGLI AMBIENTI INDIGENI DELL'ALTIPIANO ETIOPICO (NOTA PREVENTIVA.) Minerva Med. [Turin] Anno 31, 1 (4): 69–72. Jan. 28, 1940.

Rickettsia prowazeki, *R. pediculi*, *R. rocha-limae* in lice from surroundings of natives on Ethiopian plateaus.

PIVOVAROV, V. M. (839)
[DAS ANABASINSULFAT ALS MITTEL GEGEN KOPFLÄUSE.] (In Russian with brief German summary.) Zhurn. Mikrobiol., Epidemiol., Immunobiol. (Ztschr. f. Mikrobiol., Epidemiol. u. Immunitätsf.) 1940 (4): 130–132.

A mixture of a 2 percent solution of anabasine sulfate with 0.5 percent of green soap is completely effective against head lice and has no harmful effect on the scalp.—Abs. in Soap 18 (7): 109. July 1942. 307.8 So12

RAYNAL, J. (840)
LE TYPHUS MURIN À CHANG-HAÏ. Soc. de Path. Exot. Bul. 33 (3): 168–175. Mar. 13, 1940. 448.9 So13

Pediculus humanus involved.—Abs. in Rev. Appl. Ent., B 28: 190. 1940.

RICHMOND, A. E. (841)
NEW PORTABLE HOT AIR DISINFESTING AND DRYING MACHINE. Roy. Army Med. Corps. Jour. 74(3): 121–137, illus. March 1940. 448.9 R81

Designed for treatment of clothing, equipment, blankets, etc., under field conditions. A gradually produced minimum surface temperature of 70° C. throughout the whole of the material for 30 minutes is achieved and found adequate for destruction of the louse in all its stages.—Abs. in Bul. War Med. 1: 60. 1940.

ROSSIYSKY, D. M. (842)
[DISINFECTION AND PROPHYLACTIC MEASURES IN TYPHUS AND RELAPSING FEVER.] Soviet Med. 1940, No. 3.

Two preparations were effective in louse control: 1) "Nassecamoyad," a 10 percent solution of kerosene-carbolic soap; 2) "Solvent," a product of benzole and toluol.—Abs. in Trop. Dis. Bul. 39(3): 142. March 1942.

SMITH, P. I. (843)
LOUSE CONTROL . . . A WARTIME PROBLEM OF ARMIES IN THE FIELD. Soap 16 (9): 105, 107, 109, illus. September 1940. 307.8 So12

"A review. . . . In France they are using steam, dry heat and in some cases heavy coal naphtha. Naphthalene in various mixtures seems the most promising repellent material."—Chem. Abs. 34: 7482. Nov. 10, 1940.

TABORSKY, J., and CAJKOVAC, S. (844)
[THERAPEUTIC VALUE OF PYRETHRUM IN SCABIES AND PEDICULOSIS.] Liječnicki Vjesnik 62: 486–489. October 1940.

UNITED STATES WAR DEPARTMENT. (845)
BASIC FIELD MANUAL. MILITARY SANITATION AND FIRST AID. Prepared under the direction of the Surgeon General. 192 pp., illus. Washington, U. S. Govt. Print. Off. 1940. (FM 21–10)

Control of lice, pp. 91–103. "Louse control is essentially a responsibility of unit commanders." Describes and illustrates different types of disinfestors using hot water, steam and hot air. Also mentions the use of hot irons, and cresol. Soap formula given: boil one part of ordinary issue soap in four parts of water—add two parts of kerosene—mix with four parts of water.

VÁMOS, L. (846)
DATA ON BLOOD PICTURE IN SKIN DISEASES OF PARASITIC ORIGIN. Orvosi Hetil. 84: 432–433. Aug. 17, 1940.

Includes pediculosis.

WEINMAN, D. (847)
BARTONELLOSIS: A PUBLIC HEALTH PROBLEM IN SOUTH AMERICA. Rev. Med. Trop. y Parasitol. 6 (5/6): 277–281. September/December 1940. 448.8 R328

Reprinted in Jour. Trop. Med. and Hyg. [London] 44 (10): 62–64. May 15, 1941. 448.8 J827

In Colombia the louse [*Pediculus humanus*] is suspected of being an important vector.

WERNER, H. (848)
ÜBER DIE RICKETTSIEN DES FÜNFTAGEFIEBERS. Inst. Biol. [São Paulo] Arq. 11: 601–605. 1940.

Reviews the literature on the causative agent of trench fever since the work of Rocha-Lima. The louse, not man, seems to be the true host of *Rickettsia quintana.*—Abs. in Biol. Abs. 16 (3): 684, item 7464. March 1942.

1941

ANONYMOUS. (849)
FLEA AND LOUSE CONTROL. Soap 17 (12): 115–117, illus. December 1941. 307.8 So12

Derris or cubé dust or wash used for head or body lice, naphthalene-iodoform-creosote mixture for body lice, and derris or cubé powder or ointment for pubic lice.

——— (850)
THE INCIDENCE OF PEDICULOSIS. Pub. Health [London] 54 (6): 86–87. March 1941. 449.8 P96

——— (851)
INFESTATION BY LICE. Pub. Health [London] 54 (7): 103–104. April 1941. 449.8 P96

——— (852)
LICE AND DISEASE. Brit. Med. Jour. 1941, 1 (4179): 199–200. Feb. 8, 1941. 448.8 B77

Reprinted in Weekly Roster and Med. Digest [Philadelphia] 36 (31): 961–963, 965. Mar. 22, 1941.

Editorial. Discusses possible wartime increase in general infestations of human lice with corresponding appearance of louse-borne disease. General control measures are also given.

——— (853)
LOUSE-BORNE TYPHUS FEVER. Brit. Med. Jour. 1941, 2 (4222): 817. Dec. 6, 1941. 448.8 B77

——— (854)
USE OF DERRIS IN THE WAR ON LICE. Malayan Agr. Jour. 29: 170. April 1941. 22.5 F312

Possibilities of the Malayan product, derris, as an insecticide for human-infesting lice.

ANGEVINE, W. K. (855)
PYRETHRUM IN MEDICINE. Med. Ann. Dist. Columb. 10: 21–22. January 1941.

Reprinted in Soap 17 (3): 101, 103. March 1941. 307.8 So12

With special reference to the use of pyrethrum in scabies and pediculosis of prisoners.

——— (856)
PYRETHRUM OINTMENT. A REPORT ON ITS USE IN THE CONTROL OF LICE AND SCABIES. Soap 17 (8): 117, 119. August 1941. 307.8 So12

This ointment is considered to be the most efficient way of controlling lice in institutions. The only suitable medium found was a petrolatum with a high melting point, in which many of the olefines had been distilled off.—Abs. in Rev. Appl. Ent., B 30: 72. 1942.

ASBECK, F. (857)
EINE NEUARTIGE BEHANDLUNG DER PEDIKULOSIS. Dermat. Wchnschr. 112: 296–299. Apr. 12, 1941.

Use of mercurous chloride.

BENNETT, R. (858)
A PORTABLE DISINFESTOR. Roy. Army Med. Corps Jour. 76 (3): 171–173, illus. March 1941. 448.9 R81

For delousing. Based on the Serbian barrel type used in the war of 1914–18, but designed to overcome its drawbacks.

BUENO DOS REIS, J. D. (859)
A PEDICULOSE NOS PARQUES INFANTIS DE SÃO PAULO. Rev. Arq. Munic. São Paulo 7 (77): 281–300. 1941.

BUXTON, P. A. (860)
DISCUSSION ON PREVENTION AND TREATMENT OF PARASITIC DISEASES. SOME RECENT WORK ON THE LOUSE. Roy. Soc. Med. Proc. 34 (4): 193–195, illus. February 1941. 448.9 R814
Also in Brit. Jour. Dermat. and Syph. 53: 145–160. May 1941.
Pediculus humanus, L. and *P. h. capitis*, Deg., the former controlled by powder and liquid insecticide of secret formula.—Abs. in Rev. Appl. Ent., B 29: 117. 1941.

——— (861)
ON THE OCCURRENCE OF THE CRAB-LOUSE (PHTHIRUS PUBIS: ANOPLURA) IN THE HAIR OF THE HEAD. Parasitology 33 (1): 117–118. March 1941. 448.8 P21
Abs. in Rev. Appl. Ent., B 29: 161. 1941.

——— (862)
STUDIES ON POPULATIONS OF HEAD-LICE (PEDICULUS HUMANUS CAPITIS: ANOPLURA). IV. THE COMPOSITION OF POPULATIONS. Parasitology 33 (2): 224–242, illus. May 1941. 448.8 P21
Abs. in Rev. Appl. Ent., B 30: 20. 1942.

CHEN, KUO-CHING. (863)
GROWTH OF LOUSE-BORNE RELAPSING FEVER SPIROCHETES IN CHICK EMBRYO. Soc. Expt. Biol. and Med. Proc. 46 (4): 638–639. April 1941. 442.9 So1
Tests to find a means of keeping the strain in the laboratory showed few animals susceptible to the louse-borne type. Blood was taken from patients, inoculated into the yolk sac or beneath the chorio-allantoid membrane of hens' eggs, and the eggs sealed. A good growth of spirochetes in the blood of the embryos resulted. This growth was dependent on living embryos.—Abs. in Trop. Dis. Bul. 39 (2): 124–125. February 1942.

FINDLAY, G. M. (864)
RELATIONSHIP OF EXANTHEMATIC AND ENDEMIC TYPHUS. Lancet [London] 241 (6170): 659–660. Nov. 29, 1941. 448.8 L22

GOLDMAN, LEON, and FRIEDMAN, L. S. (865)
INFECTION OF SCALP AND CILIA WITH PHTHIRIUS PUBIS IN A 19 MONTH OLD BABY. Amer. Jour. Dis. Children 61 (2): 344–346. February 1941. 448.8 Am38

GORKINA, A. N. (866)
INSECTICIDAL EFFECT OF WEARING APPAREL IMPREGNATED WITH "SK" AND "K" PREPARATIONS. (In Russian.) Med. Parasitol. and Parasitic Dis. 10 (5–6): 581–582. 1941. 448.8 M469

GREAT BRITAIN MINISTRY OF HEALTH. (867)
MEMORANDUM ON LOUSE-BORNE TYPHUS FEVER. 6 pp. London, H. M. Stationery Off. October 1941. (Memo. 252/Med.)
"Issued to county councils, local authorities and medical officers of health (not on sale)." Describes the process of delousing patients before admittance to hospitals and louse-proof garments to be worn by the attendants.
Detailed review in Bul. War Med. 2 (3): 209–211. January 1942. 448.8 B872
Also reviewed in Lancet [London] 2 (22): 688. Nov. 29, 1941. 448.8 L22

GREAT BRITIAIN WAR OFFICE. (868)
MEDICAL DISEASES IN TROPICAL AND SUB-TROPICAL AREAS. MEMORANDA OF BRITISH WAR OFFICE. Ed. 6 (1st American Ed.), 282 pp., illus. Brooklyn, N. Y., Chemical Pub. Co., Inc. 1941.
A military manual for use in the field; data contained are up to date; includes methods of louse control. Reviewed in Amer. Jour. Pharm. 114 (4): 151. April 1942. 396.8 Am3

GROOT, H. (869)
INVESTIGACIONES CON EL VIRUS DEL TIFO EXANTEMÁTICO EN NARIÑO. [INVESTIGATION OF THE VIRUS OF TYPHUS FEVER IN NARIÑO (COLOMBIA).] Rev. Facult. de Med. [Bogotá] 10 (4): 321–324. October 1941.
The virus of this disease has now been investigated and found to correspond with the virus of classical (louse-borne) typhus fever. Suspensions made from a patient in the acute stage were infective to guinea pigs.—Abs. in Trop. Dis. Bul. 39 (7): 452. July 1942. 448.8 T752

HADDOW, A. J. (870)
THE INFLUENCE OF NUTRITION ON EGG-PRODUCTION AND LONGEVITY IN UNMATED FEMALE BODY-LICE (PEDICULUS HUMANUS CORPORIS: ANOPLURA). Parasitology 33 (1): 40–46, illus. March 1941. 448.8 P21
Abs. in Rev. Appl. Ent., B 29: 160. 1941.

HAXTHAUSEN, H. (871)
DERRIS-PRÄPARATE ANGEWANDT GEGEN FILZLÄUSE [PHTHIRUS PUBIS]. Acta Dermat.-Ven. [Stockholm] 22 (5): 496–498. November 1941.
Tincture of derris baths found effective against both eggs and adults.

HULL, T. G. (872)
DISEASES TRANSMITTED FROM ANIMALS TO MAN. Ed. 2, 403 pp., illus. Springfield, Ill., Baltimore, Md., C. C. Thomas. 1941. 448 H873
Typhus fever, pp. 292–306; Relapsing fever, pp. 319–326.

IVANÒVA, S. Z. (873)
THE "SK" PREPARATION AND ITS USE FOR LOUSINESS CONTROL. (In Russian.) Med. Parasitol. and Parasitic Dis. 10 (5–6): 572–576. 1941. 448.8 M469

LEESON, H. S. (874)
EFFECT OF TEMPERATURE UPON THE HATCHING OF THE EGGS OF PEDICULUS HUMANUS CORPORIS DE GEER (ANOPLURA). Parasitology 33 (2): 243–249, illus. May 1941. 448.8 P21
Abs. in Rev. Appl. Ent., B 30: 21. 1942.

——— (875)
THE SURVIVAL OF UNFED PEDICULUS HUMANUS CORPORIS, DE GEER (ANOPLURA) AT DIFFERENT TEMPERATURES. Bul. Ent. Res. 32 (1): 49–51. April 1941. 421 B87
Abs. in Rev. Appl. Ent., B 29: 161. 1941.

LIU, WEI-T'UNG, and ZIA, S. H. (876)
STUDIES ON THE MURINE ORIGIN OF TYPHUS EPIDEMICS IN NORTH CHINA. I. MURINE TYPHUS RICKETTSIA ISOLATED FROM BODY LICE IN THE GARMENTS OF A SPORADIC CASE. Amer. Jour. Trop. Med. 21 (4): 507–523, illus. July 1941. 448.8 Am33
Abs. in Rev. Appl. Ent., B 30: 21–22. 1942.

——— and ZIA, S. H. (877)
STUDIES ON THE MURINE ORIGIN OF TYPHUS EPIDEMICS IN NORTH CHINA. II. TYPHUS RICKETTSIA ISOLATED FROM MICE AND MOUSE-FLEAS DURING AN EPIDEMIC IN A HOUSEHOLD AND FROM BODY LICE IN THE GARMENTS OF ONE OF THE EPIDEMIC CASES. Amer. Jour. Trop. Med. 21 (5): 605–625. September 1941. 448.8 Am33
"It seemed much more likely that the infection was conveyed from the house rodents to man by their fleas and then from man to man by human lice."—Abs. in Trop. Dis. Bul. 39: 144. 1942.

MACDONALD, M. (878)
USE OF DERRIS IN THE WAR ON LICE. Malayan Agr. Jour. 29 (4): 170. April 1941. 22.5 F312

MACHAFFIE, L. P. (879)
PEDICULOSIS—NEW TREATMENT. Canad. Pub. Health Jour. 32 (12): 606–607. December 1941. 449.8 P964
Reprinted in Med. Off. 67: 150. 1942. 448.8 M462; and in Bul. Sanit. [Prov. Québec] 42 (1): 1–3. 1942. 449.75 Q35B
Lethane (n-butyl-carbitol-thiocyanate) in deodorized kerosene used for head lice on children.

MACKENZIE, M. D. (880)
SOME PRACTICAL CONSIDERATIONS IN THE CONTROL OF LOUSE-BORNE TYPHUS FEVER IN GREAT BRITAIN IN THE LIGHT OF EXPERIENCE IN RUSSIA, POLAND, RUMANIA AND CHINA. Roy. Soc. Med. Proc. 35 (2): 141–156. December 1941. 448.9 R814
Reviews the many methods used to eradicate lice during epidemics of typhus. Based on extensive personal experience.—Abs. in Trop. Dis. Bul. 39(6): 370. June 1942.

MACLEOD, J., and CRAUFURD-BENSON, H. J. (881)
CASUAL BEDS AS A SOURCE OF LOUSE INFESTATION. Parasitology 33 (2): 211–213. May 1941. 448.8 P21
Abs. in Rev. Appl. Ent., B 30: 19–20. 1942.

——— and CRAUFURD-BENSON, H. J. (882)
OBSERVATIONS ON NATURAL POPULATIONS OF THE BODY LOUSE, PEDICULUS HUMANUS CORPORIS DE G. Parasitology 33 (3): 278–299, illus. August 1941. 448.8 P21
Results of examination of clothing.

MANIFOLD, R. H. C. (883)
A PORTABLE SHOWER AND DISINFESTOR UNIT. Roy. Army Med. Corps. Jour. 77 (6): 310–313, illus. December 1941. 448.9 R81
"The unit when built can be run up in twenty minutes and converted into the Serbian barrel in ten minutes."

*MARIANI, G. (884)
DISINFESTANTI ED ANTIPARASSITARI CONTRO IL PEDICULUS HUMANUS NELLA PRATICA. [DISINFESTATION AND ANTIPARASITIC MEASURES FOR USE AGAINST PEDICULUS HUMANUS.] Minerva Med. [Turin] anno 32, 1 (19): 463–464. May 11, 1941. (Microfilm—Army Medical Library.)
Stresses practical treatment of troops under war conditions. Recommends the use of warm, soapy shower baths with accompanying hot air disinfestation of clothing and bedding. Also mentions use of orthocresol and petroleum products.

MELLANBY, K. (885)
THE INCIDENCE OF HEAD LICE IN ENGLAND. Med. Off. 65: 39–43, illus. Feb. 1, 1941. 448.8 M462
Abs. in Rev. Appl. Ent., B 29: 99–100. 1941.

NAUCK, E. G., and WEYER, F. (886)
ERFAHRUNGEN BEI DER ZUCHT VON KLEIDERLÄUSEN UND DER KÜNSTLICHEN INFEKTION VON LÄUSEN MIT FLECKFIEBER. [CULTURE OF CLOTHING LICE AND THEIR ARTIFICIAL INFECTION WITH TYPHUS.] Zentbl. f. Bakt. [etc.] Abt. I, Originale 147: 353–364. Aug. 28, 1941.

OLITSKY, P. K. (887)
HANS ZINSSER AND HIS STUDIES ON TYPHUS FEVER. Amer. Med. Assoc. Jour. 116 (10): 907–912. Mar. 8, 1941. 448.9 Am37

OLLERENSHAW, R. G. W. (888)
A PORTABLE STEAM FIELD DISINFESTOR. Roy. Army Med. Corps. Jour. 77 (5): 245–253, illus. November 1941. 448.9 R81

PIVOVAROV, V. M. (889)
PYRETHRUM CONTROL OF TYPHUS AND RELAPSING FEVER. (In Russian.) Med. Parasitol. and Parasitic Dis. 10 (5/6): 582–583. 1941. 448.8 M469

ROSE. (890)
FLECKFIEBERFRAGEN BEI DER UMSIEDLUNG DER VOLKSDEUTSCHEN AUS DEM OSTRAUM 1939/1940. [THE CONTROL OF TYPHUS FEVER IN THE GERMAN COLONIZATION OF POLAND (1939–1940).] Deut. Med. Wchnschr. 67 (46): 1262–1265. Nov. 14, 1941.

"This paper deals with the vast and complex problem of typhus prevention in a mass movement of 132,000 settlers from Germany to the newly occupied 'ostraum' in Poland . . . colonists were deloused at the rate of 4,000 daily . . . No details are given of the preventive measures except that hot-air disinfestation is mentioned as being selected on general grounds and also because of its effectiveness in sterilizing the faeces of infected lice."—Abs. in Trop. Dis. Bul. 39 (6): 372. June 1942.

ROY, D. N., GHOSH, S. M., and CHOPRA, R. N. (891)
TREATMENT OF SCABIES AND PEDICULOSIS, WITH PYRETHRUM. Indian Med. Gaz. 76(6): 333–335. June 1941.

SOBOLEVA, N. I. (892)
THE USE OF "K" PREPARATION AGAINST PEDICULOSIS. (In Russian.) Med. Parasitol. and Parasitic Dis. 10(5/6): 576–580. 1941. 448.8 M469

SPENCER, G. J. (893)
THE CONTROL OF HUMAN LICE UNDER WAR CONDITIONS. Canad. Ent. 73(1): 20. January 1941. 421 C16

Use of lavender oil, derris powder and the mosquito repellent Sta-way (diethylene glycol monobutyl ether acetate and diethylene glycol monoethyl ether).—Abs. in Rev. Appl. Ent., B 29: 143. 1941.

UNITED STATES BUREAU OF ENTOMOLOGY and PLANT QUARANTINE. (894)
LICE. U. S. Bur. Ent. and Plant Quar. Insects in Relat. to Natl. Defense Cir. 9, 18 pp., illus. Washington, D. C. May 1941. [Processed.] 1.967 A2In7

VARGAS, L. (895)
NOTA SOBRE EL PAPEL DE ALGUNOS ARTRÓPODOS EN LA TRANSMISIÓN DE ONCHOCERCA VOLVULUS. Mex. Inst. de Salub. y Enferm. Trop. Rev. 2 (3/4): 365–373. 449.9 M572

Various arthropods were applied to *Onchocerca* infected individuals and then dissected. Of 149 specimens of *Pediculus humanus corporis* and 23 of *Pediculus humanus capitis* only 3 had microfilariae.

WIGGLESWORTH, V. B. (896)
THE SENSORY PHYSIOLOGY OF THE HUMAN LOUSE PEDICULUS HUMANUS [HUMANUS, L.] CORPORIS DE GEER (ANOPLURA). Parasitology 33(1): 67–109, illus. March 1941. 448.8 P21

WYBOURN, J. T. (897)
DRUM PORTABLE DISINFECTOR. Roy. Army Med. Corps. Jour. 77 (5): 261–264, illus. November 1941. 448.9 R81

For disinfection of blankets, bedding, and kits with steam.

1942

ANONYMOUS. (898)
ARMY LOUSE POWDER. Soap 18(11): 105. November 1942. 307.8 So12

The formula given was developed by the U. S. Bureau of Entomology and Plant Quarantine.

——— (899)
COMMISSION TO STUDY TYPHUS IN WAR ZONES. Amer. Med. Assoc. Jour. 120 (13): 1044. Nov. 28, 1942. 448.9 Am37

The announcement of the creation of the United States of America Typhus Commission is discussed.

——— (900)
HEAD LICE. Med. Off. 67(1): 2–3. Jan. 3, 1942. 448.8 M462

Moral problems of dealing with school children affected with head lice. No methods of delousing given.

——— (901)
THE HEAD LOUSE AND MODERN HAIRDRESSING. Amer. Med. Assoc. Jour. 119 (13): 1036. July 25, 1942. 448.9 Am37

Refers to correspondence in the London Times in which K. Mellanby states that modern permanent waving and elaborate hair sets are favorable to an increase in the number of head lice.

——— (902)
HEALTH UNDER HITLER. Amer. Med. Assoc. Jour. 120 (2): 137. Sept. 12, 1942. 448.9 Am37

Includes information taken from "National Zeitung, Berne, July 16" in regard to a new German anti-louse mixture using horse sweat as its chief ingredient.

——— (903)
LICE IN CHILDREN. Med. Off. 68 (13): 99. Sept. 26, 1942. 448.8 M462

Refers to the school medical report of Dr. K. Knight for 1941. Quotes a table on the incidence of head lice in the children of the borough of Haslingden. Original comments are given.

——— (904)
LOUSE-BORNE TYPHUS. Med. Off. 67 (2): 10. Jan. 10, 1942. 448.8 M462

Importance of delousing in control of typhus; no methods are given.

ANONYMOUS. (905)
THE NATURAL HISTORY OF LOUSINESS; A CAUTIONARY STORY BY A FIELD AMBULANCE COMMANDER OF 1914–18. Lancet [London] 242 (6188): 423–424. Apr. 4, 1942. 448.8 L22

It should be remembered that lousiness is never solved, only controlled. Measures used in camp in England and in the line, north of Arras, are given. Urges constant inspection of the individual soldier.

——— (906)
THEY ALSO SERVE. Time 40 (16): 58, illus. Oct. 19, 1942.

Volunteers from a conscientious objectors' camp infest themselves with lice to aid Rockefeller Foundation experimental work on new anti-louse powders. Results are a wartime secret.

——— (907)
THE TYPHUS GROUP OF FEVERS. Lancet [London] 242 (6188): 425–426. Apr. 4, 1942.

Classic, epidemic typhus is louse-borne and is caused by the organism *Rickettsia prowazeki.* Other forms are "essentially infections of animals and are conveyed to man by arthropod vectors not normally parasitic on man. They are therefore sporadic or endemic and not epidemic in incidence." In Mexico evidence seems to indicate that murine typhus may give rise to the epidemic disease with the human louse as vector.

——— (908)
TYPHUS IN EUROPE AND AFRICA. Med. Off. 68 (16): 121. Oct. 17, 1942. 448.8 M462

Editorial.

ADLER, S., and ASHBEL, RIVKAH. (909)
THE BEHAVIOUR OF SPIROCHAETA PERSICA IN PEDICULUS HUMANUS. Ann. Trop. Med. and Parasitol. 36 (3): 83–96. Sept. 30, 1942. 448.9 L75A

Deals with the relationship between tick- and louse-borne relapsing fever. Records laboratory experiments in Palestine to establish a biological criterion for differentiating between tick- and louse-borne spirochaetes and to determine the transmissibility of tick-borne spirochaetes by lice and vice versa.

AYRES, SAMUEL, JR. (910)
WAR DERMATOLOGY: SOME GENERAL ASPECTS. Calif. and West. Med. 57 (5): 294–297. November 1942. 448.8 C12

Pediculus corporis, P. capitis and *Phthirus pubis* are listed in a concise table which gives symptoms, treatment and prophylaxis.

BOCCIA, GUIDO. (911)
OSSERVAZIONI SULLA FEBBRE RICORRENTE IN ERITREA. [OBSERVATIONS ON RECURRENT FEVER IN ERITREA.] Med. Trop. e Subtrop. 2:25–37. 1942.

Transmission in this locality is almost exclusively by means of the louse.—Abs. in *Zentbl. f. die Gesam. Hyg. 50(2): 94. Aug. 10, 1942. (Microfilm—U. S. Department of Agriculture Library.)

BUSVINE, J. R. (912)
HEAD AND BODY LICE. Brit. Med. Jour. 1942, 1 (4235): 334. Mar. 7, 1942. 448.8 B77

It was found that the powder known as A. L. 63 gave protection for a few days. A more lasting insecticide to be applied to clothing has been found in a liquid preparation the composition of which is for the present a secret; for head lice it has been prepared in the form of a medicated "brilliantine."

——— (913)
NEW METHODS OF CONTROLLING HEAD AND BODY LICE. Ann. Appl. Biol. 29 (3): 309. August 1942. 442.8 An72

Abstract of a paper read before the Association of Applied Biologists, Feb. 20, 1942.

Mentions the use of lasting insecticides which "proof" a person for a month after treatment.

———and BUXTON, P. A. (914)
A NEW METHOD OF CONTROLLING THE HEAD LOUSE. Brit. Med. Jour. 1942, 1 (4240): 464–466. Apr. 11, 1942. 448.8 B77

Three insecticides are recommended: (1) technical lauryl thiocyanate in a white oil; (2) lethane 384 special, in a similar oil; (3) derris cream.

CHARTERS, A. D. (915)
RELAPSING FEVER IN ABYSSINIA. Roy. Soc. Trop. Med. and Hyg. Trans. 35 (5): 271–279. Mar. 6, 1942. 448.9 R813

Guts of two specimens of *Pediculus humanus corporis* taken from patients at Soddu were very heavily infested with spirochaetes. Since the blood of the patients contained only small numbers, it seems probable that the spirochaetes had multiplied in the insects' guts.—Abs. in Rev. Appl. Ent., B 30(9): 139. September 1942.

CRAMER, ALEC. (916)
LE TYPHUS EXANTHÉMATIQUE. Rev. Méd. de la Suisse Romande 62 (4): 305–318. Apr. 25, 1942.

General discussion of the disease, its transmission, preventive measures, and present occurrence in Europe. States that severe measures are being used at the Swiss frontiers to prevent its introduction into Switzerland.

CRIADO CARDONA, RAFAEL. (917)
DESINSECTACIÓN. Ejército [Madrid] No. 29, pp. 58–62, illus. June 1942.

Brief descriptions of *Pediculus humanus corporis* and *P. h. humanus* are given, followed by a discussion of disinfestation methods for use by armies in wartime. Illustrates various types of portable apparatus. Gives diagram for a disinfestation station and for a dry heat kiln.

CRUICKSHANK. (918)
MODIFICATION OF PORTABLE DISINFESTOR. Roy. Army Med. Corps. Jour. 78 (1): 39–40. January 1942. 448.9 R81

Boiler type.

DONALD, C., and BARKER, P. B. (919)
LOUSE-BORNE TYPHUS FEVER. Brit. Med. Jour. 1942, 2 (4263): 333–335. Sept. 19, 1942. 448.8 B77

Records twenty-one cases of typhus occurring in a prison camp in Germany. Attention is called to the occupational association of the "epidemic" as 76.18 percent of the cases arose in men who handled clothing at the camp disinfector.

ECKSTEIN, F. (920)
ÜBER DAS "ASID-GETAK-GAS" VERFAHREN. Anz. f. Schädlingsk. 18 (3): 32–35. 1942. 421 An9

The writer states in conclusion that on the basis of results of the experiments described, it can not be expected that the remedies labeled respectively "Getak" and "Asid" will prove useful in practical control of the clothes louse.

EVANS, FREDERIC. (921)
DESCRIPTION OF A SIMPLE IMPROVISED DISINFECTOR (UNIT TYPE). Roy. Army Med. Corps, Jour. 78 (1): 25–28, illus. January 1942. 448.9 R81

Boiler type.

FELIX, A. (922)
THE TYPHUS GROUP OF FEVERS. CLASSIFICATION, LABORATORY DIAGNOSIS, PROPHYLACTIC INOCULATION, AND SPECIFIC SERUM TREATMENT. Brit. Med. Jour. 1942, 2 (4272): 597–601. Nov. 21, 1942. References. 448.8 B77

FISCHER, G. (923)
LE TYPHUS DANS LES ARMÉES EN CAMPAGNE. Concours Méd. [Paris] 62 (19): 781–784. May 12, 1942.

The first part of the paper is devoted to a historical account of typhus among armies. It is stated that typhus is the most infectious of all diseases among field armies because ideal conditions then exist for its development. The body louse is the vector—"pas de poux, pas de typhus."

FRAENKEL, E. M. (924)
LOUSE-BORNE TYPHUS FEVER. Med. Press and Cir. 207 (21): 343–348. May 27, 1942.

Describes a method of delousing patients which includes bathing and the use of kerosene and lightwood oil in equal parts. For disinfestation of bedding and clothing cyanide is stated to be more effective than steam or dry heat. Describes and illustrates a modification of the one-piece louse-proof siren suit recommended by the Ministry of Health for use of personnel. Spraying openings of suit with cedarwood oil is advised.

——— (925)
TYPHUS FEVER. Brit. Med. Jour. 1942, 1 (4231): 199–200. Feb. 7, 1942. 448.8 B77

Stresses the importance and difficulty of delousing. No special control measures are given.

Friedman, M. (926)
NOTES ON HUMAN LICE. Indian Med. Gaz. 77 (3): 146–148. March 1942.
Observations made during the former war and in Poland as leader of a delousing station. Treatment must consider the fact that *Pediculus humanus* (*vestimenti*) lays its eggs on the hairs of the body as well as on the clothes.

Gadd, A. G., and Turner, A. W. (927)
SHORTCOMINGS OF COMMERCIAL STEAM DISINFECTION APPARATUS. Roy. Army Med. Corps. Jour. 78 (1): 1–13. January 1942. 448.9 R81

Great Britain War Office. (928)
TYPHUS EXANTHEMATICUS. Gt. Brit. War Off. Army Med. Dir. Bul. 12, 8 pp. London. 1942.
"This is an excellent and succinct account of louse-borne typhus, with emphasis on the clinical aspect and some remarks on prevention."—Abs. in Trop. Dis. Bul. 39: 680. October 1942.

Hindle, E., and Pontecorvo, G. (929)
MITOTIC DIVISIONS FOLLOWING MEIOSIS IN PEDICULUS CORPORIS MALES. Nature [London] 149 (3789): 668. June 13, 1942. 472 N21

Hughes, William, and Baldwin, R. B. T. (930)
ENDEMIC TYPHUS IN SOUTHERN NIGERIA. Roy. Soc. Trop. Med. and Hyg. Trans. 36 (1): 35–39. June 30, 1942. 448.9 R813
There is little doubt that endemic typhus exists in southern Nigeria, and observations suggest a flea-borne rather than a tick- or mite-borne type. Since the high incidence among Europeans and the endemic nature of the disease are points against the louse as vector, the author concludes that it is probably flea-borne.

Hurst, Arthur. (931)
TRENCH FEVER. Brit. Med. Jour. 1942, 2 (4262): 318–320, illus. Sept. 12, 1942. 448.8 B77
Reviews the connection of lice with trench fever, and concludes that, since the disease is conveyed by lice which have fed on infected patients, it will be of the utmost importance to keep British soldiers free from lice infestation if they come into close contact with the Russian Army in the Caucasus or elsewhere.

Jenkins, C. F. H. (932)
SOME INSECT PESTS OF MILITARY CAMPS. West. Austral. Dept. Agr. Jour. 19 (1): 13–37, illus. March 1942. 23 W52J
Lice, pp. 25–29, contains brief information on control methods for body, head, and pubic lice.

Jones, F. W. (933)
LESSONS FROM THE LOUSE; A STUDY IN SYMBIOSIS. Lancet [London] 242 (6196): 661–662. May 30, 1942. 448.8 L22
Outlines the evolutionary adaptation of human lice to the specific physical peculiarities of their host, man.

Kartman, Leo. (934)
A NOTE ON VITAMINS IN RELATION TO ECTOPARASITE RESISTANCE. Jour. Parasitol. 28 (2): 170–171. April 1942. 448.8 J824
Fundamental work although not on human lice. Known work on this problem has not shown that any one vitamin plays the single role in limiting the resistance of rats to their lice. Vitamin A cannot be taken as the "main factor."

Klose, H. (935)
ZUR EPIDEMIOLOGIE DES FLECKFIEBERS. [ON THE EPIDEMIOLOGY OF TYPHUS FEVER.] Klin. Wchnschr. 21(22): 498–500. May 30, 1942.
Faeces of infested lice reported as only possible source of infection among personnel of certain prison camps. Delousing not a sufficient safeguard even when repeated three times. It is essential to disinfect the skin by effective chemical antiseptics, and clothing, bedding, etc., must be sterilized by steam or dry heat.—Abs. in Trop. Dis. Bul. 39: 675–676. October 1942.

Knight, S. (936)
SIMPLE MEANS FOR TESTING THE EFFICIENCY OF IMPROVISED DISINFECTORS AND DISINFESTORS. Roy. Army Med. Corps. Jour. 79 (1): 45–46. July 1942. 448.9 R81
On the use of make-shift apparatus for testing the efficiency of improvised dry-heat disinfectors and disinfestors.

KOBLER, JOHN. (937)

BLITZ PLAGUE. Sat. Evening Post 215 (8): 26–27, 45, illus. Aug. 22, 1942. 110 S

Relation of lice and typhus fever to war.

LESSARD, RICHARD. (938)

TRAITEMENT DU TYPHUS EXANTHÉMATIQUE. Union Méd. du Canada 71 (7): 723–724. July 1942.

Résumé d'une communication à la Société Médicale de Québec, Feb. 11, 1942.

Prophylaxis must be based on destruction of the louse since a single bite from an infested louse will transmit typhus. Linen and clothing from infested persons should be collected in metal chests or sprinkled with benzene. Heavily infested patients should be wrapped in sheets soaked in benzene. Bathing with petrol soap is advised, also treating the hairy parts of the body with camphorated oil, vaseline and xylol, or cuprex (Merck). For pubic louse infestations, grey ointment or cuprex is recommended. Personnel handling the delousing should wear special clothing. For disinfection of clothing and linen heat is recommended, and for buildings fumigation with sulfur or chloropicrin. Louse carriers, after being located and deloused, should be isolated for 12 days. General typhus prevention measures suggested include establishment of delousing stations, surveillance of itinerent populations with special attention to the hygiene of doss houses, and the appointment of special maritime and international health officers.

LIEBAU, GERHART. (939)

EINIGE BEOBACHTUNGEN ZUR KLINIK DES FLECKFIEBERS. [A REPORT ON CLINICAL OBSERVATIONS IN TYPHUS FEVER.] Klin. Wchnschr. 21 (22): 500–502. May 30, 1942.

In November 1941 typhus broke out among German soldiers looking after Russian prisoners of war in a camp near Berlin. They were treated in a military hospital where strict precautions were followed including delousing, bathing and change of clothing. No further cases occurred except that of the medical officer in charge. Since bites or infected faeces of lice could be excluded no further explantion was found than contact with blood smears of patients from whom blood specimens were taken. The author believes this to be first time blood smear infection has been recognized.—Abs. in Trop. Dis. Bul. 39 (11): 755–756. November 1942.

LIU, WEI-T'UNG, ZIA, S. H., CHUNG, H. L., and WANG, C. W. (940)

TYPHUS FEVER IN PEIPING. EPIDEMIOLOGICAL CONSIDERATIONS. Amer. Jour. Hyg. 35(2): 231–250, illus. March 1942. 449.8 Am3

Reviews previous work by the authors on the relationship between louse-borne and flea-borne typhus fever. New evidence is advanced to show that both types coexist in Peiping and that, as in Mexico, epidemics originate from rodent reservoirs.—Abs. in Trop. Dis. Bul. 39 (9): 613. September 1942.

MACCHIAVELLO, A. (941)

INVESTIGATIONS OF CHILEAN EXANTHEMATICUS TYPHUS AND EXPERIMENTAL EXANTHEMATOUS TYPHUS. Pacific Sci. Cong., 6th, Berkeley, Calif., 1939. Proc., v. 5, pp. 649-671. 1942. 330.9 P194

Includes detailed results of experiments to determine the infectivity of human exanthematous typhus. The degree of infection of lice from patients was used as a measure.

MACKENZIE, M. D. (942)

THE LOUSE IN RELATION TO TYPHUS FEVER. Roy. Sanit. Inst. Jour. 62 (4): 177–181. October 1942. Discussion, p. 182. 449.9 R812

The body louse is considered to be only an evolutionary form of the head louse, and both are regarded as vectors of typhus fever. A summary is given of the life history, habits and behavior of the louse, and of the mode of transmission of typhus. Special stress is laid on less well-known preventive and control methods of procedure for workers in typhus-infested districts. Gives the formula for preparation of Weigl's vaccine.

MAZZA, S. (943)

LOUSE-BORNE TYPHUS IN THE ARGENTINE REPUBLIC. Pacific Sci. Cong., 6th, Berkeley, Calif., 1939. Proc., v. 5, pp. 677–678. 1942. 330.9 P194

Megaw, J. W. D. (944)

louse-borne typhus fever. Brit. Med. Jour. 1942, 2 (4265, 4266): 401–403, 433–435. Oct. 3, 10, 1942. 448.8 B77

The present knowledge of the mode of transmission is summarized. Elimination of louse infestation is the best method of prevention. Personnel engaged in typhus work should be young as there is great risk in the exposure of elderly people. Danger from louse faeces makes disinfection of patient's skin desirable. Buxton advises lathering the skin with a mixture of 1½ oz. of Jeye's fluid, 1½ oz. of soft soap and 10 gals. of water as a preliminary to bathing. Clothing and bedding should be disinfected by heat, while cyanide gas is recommended for rooms and furniture. Louse-proof clothing is urged for workers. Rubber gloves and gum boots, into which sleeves and trousers can be tucked, give some protection. Arms and legs should be smeared with camphorated oil (1 part camphor to 9 parts olive oil or liquid paraffin). Clothing should be changed frequently and a hot bath taken, using the medicated soap recommended by Buxton.

Mellanby, K. (945)

natural population of the head-louse (pediculus humanus capitis: anoplura) on infected children in england. Parasitology 34 (2): 180–184, illus. July 1942. 448.8 P21

The heads of 93 infested children under 14 years of age from a northern industrial city were examined. Sixty-five percent of the infestations were light but must have been established for some weeks. Girls were more frequently heavily infested than boys.

Michigan Department of Health. (946)

possible outbreaks of typhus fever indicated in reports of louse infection. Mich. Pub. Health 30 (5): 85–86. May 1942. 449.7 M58M.

Body lice are increasing in southeastern Michigan. General directions given for treatment and prevention.

Mooser, H. (947)

à propos de la lutte contre le typhus exanthématique et la fièvre récurrente epidémiques. Rev. Internatl. de la Croix-Rouge 24 (278): 113–120. February 1942.

Fumigation with hydrocyanic acid or sulfur, and the use of disinfectant solutions such as carbolic acid or cresol soap are mentioned. For cleansing and delousing the body the author recommends preliminary bathing in "black" soap and warm water followed by treatment with either, 1) a mixture of 3 parts paraffin with 7 parts olive oil, oil of sesame, etc., or, 2) rubbing with petrol or kerosene. He states that the English use heavy coal tar oil. Advises fumigation of clothing and bedding. Suggested treatment for head louse includes rubbing with petrol or kerosene (75 parts petrol to 25 parts linseed oil or oil of sesame), chloroform, or ether. In little civilized communities or in epidemics, disinfestation centers, both stationary and portable, are necessary.

Owczarewicz, Leon. (948)

w sprawie epidemiologji duru plamistego w polsce i rosji. [typhus exanthematicus—louse-borne epidemic typhus.] (In Polish with English summary.) Lekarz Wojskowy (Jour. Polish Army Med. Corps) 34 (4): 204–208, 211–212, 214–222. June–July 1942.

"The home of typhus is Eastern Poland, Russia and the Balkans." Special attention is given to the prevention of infestation. It is stated that impregnating clothing with cresol preparations only postpones infestation, and that lice prefer light-colored clothing and avoid dark. Mentions the use of bags containing various drugs sewn into clothes and the Russian "Malinin" solution, a mixture of turpentine, oil extract of Persian powder, phenol and cinnamon oil. "Oil" and turpentine was found as effective as a mixture of "oil" and xylol. An "oil" and petrol mixture sprayed on the clothes was effective, but the most efficient of all was found to be a mixture of petrol, xylol and "oil" to which was added a few drops of turpentine to remove the smell. The use of the British N. C. I. powder for dusting underclothes is also mentioned. The difficulty of preventing a typhus epidemic after this war is discussed and the abstract states that "if this war ends in the cold season, a great pandemic is likely to occur in Europe, like the one that broke out after Napoleon's return from Moscow."—Abs. in Trop. Dis. Bul. 39 (11): 751–752. November 1942.

Paquet, Berchmans. (949)
HISTOIRE ET DISTRIBUTION GÉOGRAPHIQUE DU TYPHUS EXANTHÉMATIQUE. Union Méd. du Canada 71 (7): 714–718. July 1942.
Outlines the history of typhus, its transmission and etiology, with a brief account of the biology of the human louse. Control measures discussed include the use of Legroux' sachet and an ointment of the mixture in vaseline, creation of disinfestation centers, use of sulfur or formaldehyde, and vaseline and xylol ointment. For clothing, hot water and vacuum fumigation with hydrocyanic acid or hot air are mentioned. For delousing kerosene is especially recommended, and carbon disulfide, naphthalene, ammonia, and N. C. I. powder are also listed.

Patiño-Camargo, Luis. (950)
A NEW FOCUS OF BARTONELLOSIS ON THE COASTS OF THE PACIFIC. Pacific Sci. Cong., 6th, Berkeley, Calif., 1939, Proc., v. 5, pp. 757–764, illus. 1942. 330.9 P194
". . . the author is inclined to accuse the human louse (*Pediculus humanus*) as a vector in the new focus of Bartonellosis."

*Quintana, Primitivo de la. (951)
DAS FLECKFIEBER IN SPANIEN. [TYPHUS FEVER IN SPAIN.] Ztschr. f. Hyg. u. Infektionskrank. 123 (6): 665–674, illus. May 16, 1942. (Microfilm—U. S. Department of Agriculture Library.)
The clothes louse [*Pediculus humanus corporis*] was considered much more dangerous than the head louse, therefore great care was used in disinfection of clothing. Disinfection stations were set up in many towns. The distribution of soap and petroleum is also mentioned.

Ratcliff, J. D. (952)
BITE OF DEATH. Collier's 109 (13): 15, 42–43, illus. Mar. 28, 1942.
On the spread of typhus by lice.

Raynal, J. H. (953)
EXANTHEMATIC FEVERS IN SHANGHAI. Pacific Sci. Cong., 6th, Berkeley, Calif., 1939. Proc., v. 5, pp. 695–705. 1942. References, p. 705. 330.9 P194
The author concludes that the Shanghai variety of typhus is probably a local murine typhus. The mildly epidemic condition which replaced the usual sporadic cases in April, May and June of 1938 was due to conditions which produced "a fortuitous spread of murine typhus by lice."

Rocha-Lima, H. da. (954)
DISEASES OF THE TYPHUS GROUP IN SOUTH AMERICA. Pacific Sci. Cong., 6th, Berkeley, Calif., 1939. Proc., v. 5, pp. 737–743. 1942. 330.9 P194

Seiffert, Gustav. (955)
EIN INDEX FÜR FLECKFIEBERVERSEUCHUNG. [AN INDEX OF TYPHUS INFECTION.] München. Med. Wchnschr. 89 (14): 304–306. Apr. 3, 1942.
The "louse index" is also carefully estimated and taken into account in deciding on control measures. The typhus index was zero in 100 German soldiers and in 100 Russian prisoners of war who had been quarantined for long periods and repeatedly deloused.—Abs. in Trop. Dis. Bul. 39(9): 611–612. September 1942.

Smart, John. (956)
LICE. Brit. Mus. Nat. Hist. Econ. Ser., No. 2a, 32 pp. London. 1942.
Life history, louse-borne diseases, prevention and treatment.

Soboleva, N. I. (957)
THE INFLUENCE OF ANTIPEDICULIN "SK" ON THE VITAL FUNCTIONS OF LICE. (In Russian.) Med. Parasitol. and Parasitic Dis. 11 (1/2): 91–93. 1942.

*Steuer, W. (958)
UEBER SEROLOGISCHE UMGEBUNGSUNTERSUCHUNGEN BEI EPIDEMISCHEM UND ENDEMISCHEM FLECKFIEBERVORKOMMEN. [LOCAL SEROLOGICAL INVESTIGATIONS INTO THE OCCURRENCE OF EPIDEMIC AND ENDEMIC (LOUSE-BORNE) TYPHUS FEVER.] Ztschr. f. Immunitätsf. u. Expt. Ther. 101 (2): 102–121. Feb. 25, 1942. (Microfilm—U. S. Department of Agriculture Library.)
Records the results of a survey of 13 localities in the district of Krakow, Poland, in which epidemics occurred during April, May and June 1941. Ambulatory or latent cases usually harbor infected lice and must be kept under observation. Further experiments should be carried out to determine whether or not lice feeding on mild cases are less intensively infected.—Abs. in Trop. Dis. Bul. 39: 676–678. October 1942.

SYMES, C. B., MCMAHON, J., and HADDOW, A. J. (959)

PYRETHRUM POWDER: A PRELIMINARY NOTE ON ITS USE IN THE CONTROL OF INSECT VECTORS OF DISEASES. East African Med. Jour. 18 (12): 360–376. 1942.

Fresh powder proved effective against *Pediculus humanus*. When dusted on the eggs it did not prevent hatching, but the newly hatched nymphs were quickly immobilized and died without regaining activity. Tests seemed to show that when sprinkled on a loose earth floor about twice the dosage was required.—Abs. in Rev. Appl. Ent., B 30: 175–176. 1942.

UNITED STATES NAVY DEPARTMENT, BUREAU OF MEDICINE and SURGERY. (960)

MEDICAL COMPEND FOR COMMANDING OFFICERS OF NAVAL VESSELS TO WHICH NO MEMBER OF THE MEDICAL DEPARTMENT OF UNITED STATES NAVY IS ATTACHED. Revised, April 1942. 134 pp., illus. Washington, U. S. Govt. Print. Off. 1942. 153.46 M462M

Lice, pp. 64–65; Typhus fever, pp. 115–116; Measures against typhus fever at foreign and insular ports, pp. 166–177; Measures against typhus fever at port of arrival, p. 117.

*WEYER, F., and ZUMPF, F. (961)

ERFAHRUNGEN MIT "LAUSEX," EINEM NEUEN BEKÄMPFUNGSMITTEL GEGEN KÖRPERUNGEZIEFER. Deut. Tropenmed. Ztschr. 46 (13): 258–265. July 1, 1942. (Microfilm—U. S. Department of Agriculture Library.)

Experiments were made with a commercial product, "Lausex," which is a brown, nonexplosive greasy feeling liquid. According to the manufacturing firm it is a chlorine and hydrocarbon mixture with a small amount of pyrethrum added. The agreeable oily quality is the result of a special formula. Results of tests against lice were favorable.

INDEX

A

Item

- Abbott, W. C 262
- Abderhalden, Emil 533
- Abe, T 493
- Abyssinia. *See* Ethiopia.
- Acarina, disease vectors 579
- Adisesha Ayyar 509
- Adler, S. 909
- Afanador, A 756
- Africa:
  - relapsing fever:
    - Central Africa 543
    - Dakar 561
    - French Africa 604
    - French colonies 598
    - French East Africa 528
    - French West Africa 619
    - Italian East Africa, Macallè region 736
    - North Africa, epidemiology in 459
    - Sudan 452
    - West Africa 535
  - typhus fever 706, 908
  - *See also under* names of countries, *as*: Anglo-Egyptian Sudan; Tripolitania.
- Agnello, F 743
- Albrecht 84
- Alcock, A. W 357
- Alessandrini, G 296, 554
- Alexander, F. W 33
- Algeria, typhus fever control work 490
- All-Union Conference of Workers in Microbiology, Epidemiology and Infectious Diseases, Moscow, 1939 806
- Allergic reactions to lice.
  - *See* Bites, effects; *Pediculus*, bites; *Pediculus humanus corporis*, bites; *Phthirus pubis*, bites; Skin, human, reaction to louse bites, *and* reaction to louse extracts.
- *Amblyomma*, typhus fever vector, São Paulo 652
- American Red Cross 394
- American Red Cross Medical Research Committee 290, 291
- American Red Cross Society in France 232. 256, 270
- Anaphylaxis:
  - relation to louse infestation 546, 646
  - *See also* Typhus fever, immunity.
- Ancona, H. L 609
- Anderson, Charles 543, 544, 562–564, 590. 639
- Anderson, J. F 9, 10, 17–19, 34
- Anemia, relation to pediculosis 635
- Angelini, G 744
- Angevine, W. K 855, 856
- Angina, with pyemia, caused by pediculosis of the scalp 595
- Anglo-Egyptian Sudan, relapsing fever, epidemiology 800
- Animal disease and man, textbook 872
- Anoplura 357, 444, 518, 667, 791, 826
  - anatomy 614
    - atriums, tracheal 369
    - follicular epithelium 688
    - spiracles 369
  - bibliography 311
  - collection, Hamburg, Zoologisches Museum 162
  - Great Britain 169
  - host list 96
  - Melanesia 515
  - parasites of North American mammals 55
  - Polynesia 515
  - Samoa 515, 572
  - taxonomy 96, 156, 387, 648, 687, 769
  - Tonga 515
  - *See also* Lice; Pediculidae; *and* genera: *Pedicinus; Pediculus; Phthirus.*

Item

- Ants, louse predators 161
- Arabia, Yemen, distribution of Ixodidae 602
- Arakawa, Y 610, 628–630, 645, 662
- Argentina. Province of Salta Sanitary Commission 358
- Argentina, typhus fever 943
  - epidemiology and transmission 301
  - Province of Salta 358, 414
- Argentina Departamento Nacional de Higiene 301, 358
- Argentina Departamento Nacional de Higiene, Instituto Bacteriologico 414. 433
- Arkhangel'skii, N. N 681
- Arkwright, J. A 219, 359, 401, 466
- Armand-Delille, P. F 784
- Armies:
  - American 341, 845, 898
    - World War I 351, 373. 443, 472, 552
  - and insect-borne disease 141, 154, 179, 329, 339
  - Austro-German, World War I 165
  - British:
    - World War I 119, 147, 168, 338, 407, 422, 905. 926
    - World War II 841. 858, 918, 921, 931, 936,
  - disinfestation 51, 58. 85, 111, 180, 249, 276, 338, 339, 552, 600, 782, 843, 917, 932, 955
    - apparatus 373
      - drum portable 897
      - heat type 204, 395, 917
      - hot-air type 338. 422, 841, 845
      - improvised 759. 936
      - steam type 48, 65, 252, 341, 422, 732, 759, 776, 782. 845, 858, 888, 918, 921, 927
    - bathing 65, 140, 147, 204, 240, 344, 373, 395, 443, 472, 757, 759, 776, 782. 784, 884
    - British field manual for tropics 868
    - delousing stations 140, 198, 331, 776, 917
      - at demobilization 173, 396
      - Bombay docks 378
      - converted sugar factory 198
      - diagrams 757
      - for recruits 757
      - in the field 40, 63, 65, 70, 78, 105, 119, 140, 147, 203, 225, 361, 732, 759, 782, 784, 845, 868, 884, 905.
      - plant construction 225, 331, 378
    - louse powder used by United States Army 898
    - of railway carriages 372, 473
    - preembarkation 443, 472
    - prehospital 240
    - soldiers' equipment 48, 58, 252, 776, 841
      - bedding and blankets 372, 841, 884, 897
      - clothing 48, 140, 166, 204, 252, 395, 443, 472, 613, 682, 732, 757, 776, 819, 841. 884
      - kits 897
  - field, louse problems 105, 231, 265, 307, 308, 380, 407, 418, 532, 843, 905, 923
    - trenches 180, 310
  - French 757, 600
    - World War I 170, 331
    - World War II 776, 843
  - German:
    - Arneth's corps 85
    - World War I 51, 58, 63, 65, 78, 105, 179, 198, 204, 225, 240, 395, 418, 682
    - World War II 833, 935, 955
  - hygiene and sanitation 167, 265
    - field manual, United States Army 845
    - latrine covers, special design 262
    - textbook 741
  - Italian 166, 234, 884
  - pediculosis 105, 166, 224, 380
  - relapsing fever 179

Item
Armies—Continued.
  rheumatism in soldiers 33, 37
  Russian 613, 819, 931
  trench fever 230, 351, 373, 931
  typhus fever 165, 207, 347, 784, 923
  See also Camps, military.
Art and the louse 672, 679, 690, 717, 727
Artault de Vevey 402
Arthropods:
  blood-sucking, hydrogen-ion concentration in intestine 658
  disease vectors 43
Asbeck, F 857
Aschner, Manfred 631, 663, 664, 710, 729
Ashbel, Rivkah 909
Association for the Publication of the Late Mr. Y. Arakawa's Papers 662
Association Internationale de Bains Populaires et de Propretè [La Haye] 134
Atkin, E. E 434
Auden, G. A 403, 785
Audigé 453
Australia:
  insects as disease vectors, distribution 539
  louse-control work 556
  tropical, *Pediculus humanus corporis* 184
Ayres, Samuel, Jr 910

B

Bacillus typhi-exanthematici 118, 190
Bacot, A. W 86, 87, 146–148, 219–221, 297–300, 404, 405, 435, 436, 466
  obituary 461
Bacteria, transmission by lice 82
Bacterial infections of lice. *See under* specific louse.
Bacteriology, textbook 771, 816
Baehr, George 149
Baerthlein 222
Baerthlein, Karl 88
Baggage disinfestation, tests with gases 536
Bail, Oskar 223
Balbi, E 646
Baldwin, R. B. T 930
Balesi, J. C. J. B 360
Balfour, Andrew 35
Balkan States: typhus fever 149, 948
Bapty, W 150
Barbará, B 301
Barber, H. W 467
Barikine, O 555, 584
Barikine, W 555, 584
Barker, P. B 919
Barlovatz, A 818
Barrett, R. E 745
Bartonellosis:
  Colombia 847
  Pacific coasts, new focus 950
  See also Oroyo fever.
Baruikin, O. *See* Barikine, O.
Baruikin, V. *See* Barikine, W.
Barykin, O. *See* Barikine, O.
Barykin, W. *See* Barikine, W.
Bathing 204, 240, 257, 344, 354, 372, 396, 443, 472, 750, 757, 759, 776, 782, 944, 947.
  See also Armies, disinfestation, bathing.
Baths 257, 335, 924, 938
  insecticidal 871
  "Izal" 372
  petroleum: immigrants at port of New York 174
  tincture of derris 871
Battaglia, M. I 301
Baumbarten, A 151
Bayne-Jones, Stanhope 816
Beard, infestation with *Phthirus pubis* 471
Beatty, M. C 537
Bedbug. See *Cimex lectularius.*
Bedding, disinfestation 372, 441, 478, 481, 822, 897, 924, 935, 944, 947
  blankets 148, 302, 897
  mattresses 349
Behdjet, H 611
Belgian Congo, typhus fever 818
  Urundi District 702
Bellogin 585
Bennett, R 858
Benzler, J 213
Bequaert, J. C 760
Bertarelli, E 224
Bertazzi, C. G 786
Beveridge, W. W. O 361
Beyer, H. G. 89
Bieber 437
Bilfinger, F 673
Bionomics. *See under* name of specific louse.
Bites of lice:
  effects 323, 704
    superficial 243, 455, 456, 477, 488, 489, 505–508, 529, 615, 624
    systemic 268, 333, 513, 624, 646
  See also Salivary glands of lice, secretions; Vagabond's disease.
Blaizot, L 20, 21, 27
Blanchard, R. A. E 1
Blankets. *See under* Bedding.
Blau 152
Blepharitis, due to *Phthirus pubis* 743
Blewitt, Basil 761
Blood picture in pediculosis 650, 668, 846
Blood smear from typhus patients, source of infection 939
Blue spots 243, 447, 455, 456, 477, 489, 505, 507, 508, 624
  See also Skin, human, reaction to louse bites.
Blumberg 225
Boccia, Guido 911
Bodenheimer, F. S 494
Body louse. See *Pediculus humanus corporis.*
Boer, H. S. de 716
Bofinger 226
Bohemia: prison camps, Reichenberg (Liberec) 94
Bolduirev, T. E 612, 613, 819
Boldyrev, T. E. *See* Bolduirev, T. E.
Bolivia, typus fever transmission 740
Bonjean, M 787
Bordas, F 90
Borrelia carteri, in lice from infected persons 483
Borrelia novyi, transmission by louse 731
Borrelia recurrentis, development in body louse 715
Bouron, A 452
Boutelier, A 495
Boyd, M. F 153, 227
Boyer, J 596
Brain, C. K 302
Braley, A. E 788
Braun, R 438
Brazil:
  pediculosis control, playgrounds, São Paulo (City) 859
  typus fever transmission experiments, São Paulo 652
Breinl, F 496, 497, 511
Brenneman, V 647
Brill, N. E 36
Brill's disease 17, 36
Brisard, C 789
British Military Sanitary Commission, Serbian work, 1915 250
British Museum of Natural History 39, 572, 661, 956
Bruce, David 406
Bruce, W. G 570
Brumpt, E 228, 712
Brun, T. M 820
Brunet 468
Bruns, A 746
Brunton, Lauder 37
Brushing 61
Bubonic plague, transmission 694
Buchanan, G. S 154
Bueno dos Reis, J. D 859
Büscher 32
Buildings, disinfestation 148, 400, 938
  Russia 317, 371, 632
Bulliard, H 91
Burkhardt, F. P. W 362
Burnet, E 571
Burns, head, caused by sulfur dioxide 651
Burrows, William 771
Busvine, J. R 912–914
Butter-muslin. *See* Cheesecloth.
Buxton, P. A 363, 469, 515, 572, 713, 747, 762, 763, 790, 813, 821, 822, 824, 825, 860–862, 914.
  recommendations 944
Bram, William 229, 230, 303, 304

Item

C

Caesar 682
Cajkovac, S 844
California, louse control among Mexican immigrants 160
California Academy of Sciences 96
California State Board of Health 159
Calvert, P. P 155
Camerer, W 305
Camps: louse control 163, 241
immigrant railway workers 160
military 249, 905, 932
dispersal 396
prison 94, 919, 939
experimental work 49
prison: personnel, protection of 919, 935, 939
refugee, China 764
Canada:
endemic typhus in Toronto 101
typhus fever, Quebec 938
Canada Department of Health 879
Cancik, Josef 223
Cannon, H. G 365, 439
Cantacuzène, J 306, 364
Carbonell, M. V 586
Carpathian herdsmen, use of melted butter on linen 152
Carrion's disease. *See* Oroyo fever.
Carroll, J. H 229, 230, 304
Casier, J 702
Castaneda, M. R 597
Castellani, Aldo 38, 791
Cazanove 598
Cerebrospinal meningitis, lice as vectors 195
Chadwick lectures 116
Chalmers, A. J 791
Chandler, A. C 470, 826
Chang, J. H. M 765
Chapcheff, C. *See* Shapshev, K. N.
Charnot, A 787
Charters, A. D 915
Chaves Velando, L. A 685
Chavigny, Paul 307–310, 498
Cheesecloth suit and undervest 181, 269
Chen, Kuo-ching 863
Chesney, L. M 92
Chi, Ta-chih 764
Ch'iang, I-hung 830
Children:
louse control:
among evacuees 817
Great Britain 297, 298, 945
home treatment 581
pediculosis 28
England, studies 945
of eyebrows 197
of eyelashes 865
of the scalp 865, 879
São Paulo (City) playgrounds 859
See also Schools.
Chile, typhus fever transmission 941
China:
blood-sucking arthropods 545
lice in medical literature 830
refugee delousing camps 764
relapsing fever 737
North China, transmission 714, 766
Shanghai 641
typhus fever 400, 880
control measures 723
incidence 737
North China:
epidemic vs. endemic strains 940
murine origin of epidemics 876, 877
transmission 765, 834
Shanghai 807, 840, 953
Szechwan, clinical study 375
Chodzko, W 683
Cholodkovski, N 11, 156
Chopra, R. N 891
Christie, W 556
Chung, Huei-lan 714, 715, 748, 765, 766, 940
Churchill, J. H 229, 230, 304

Item

Cimex hemipterus, tarsal stigmata 567
Cimex lectularius:
Chinese medical literature 830
Mexican typhus fever vector 597
tarsal stigmata 567
Civilization and lice 71
Clothes louse. See *Pediculus humanus corporis.*
Clothing:
disinfestation 100, 114, 124, 142, 147, 148, 161, 174, 203, 206, 210, 212, 220, 235, 252, 269, 302, 317, 325, 333, 339, 344, 349, 353, 354, 371, 372, 378, 441, 453, 478, 481, 523, 536, 589, 613, 632, 732, 748, 753, 787, 822, 828, 882, 924, 935, 938, 944, 947, 949, 951
See also under Armies, disinfestation.
louseproofing 203, 215, 332, 339, 822, 866, 912
underwear 152, 171, 180, 181, 267, 269, 333, 948
relation to infestation 528
temperature conditions in, effect on lice 336
Cluver, E. H 716
Cocci, gut of louse 820
Cocconema pediculus-vestimenti n. sp., parasite of body louse 549
Cockroaches, symbionts 655
Cohen, Henry 157
Cold, effect on lice 49, 825
See also under Control measures.
Colombia:
bartonellosis 847
typhus fever:
Nariño 828, 869
Tobia 756
Color:
adaptation in lice 200, 336
effect on lice 336, 948
Comte, C 15
Condorelli Francaviglia, Mario 471
Congo. *See* Belgian Congo.
Conjunctivitis 463
Conscientious objectors, volunteers for experiments 906
Conseil, E 15, 20, 21, 27
Control measures 40, 47, 62, 75, 89, 119, 129, 141, 143, 145, 147, 163, 172, 199, 202, 229, 236, 253, 260, 283, 285, 287, 296, 298, 309, 319, 333, 341–343, 347, 367, 374, 386, 393, 424, 430, 518, 548, 614, 661, 790, 823, 829, 833, 836, 852, 880, 893, 894, 905, 949, 960
acetic acid 206, 376, 627
See also Control measures, mercuric chloride and acetic acid.
acetic ether. *See* Control measures, ethyl acetate.
acetone 56
acetum sabadillae. *See* Control measures, sabadilla vinegar.
acidum salicylicum. *See* Control measures, salicylic acid.
AL. 16 powder 822
AL. 63 powder 912
alcohol 202
See also Control measures, camphorated alcohol.
alcohols 374
aldehydes 374
alkali wash 202
aloe:
in alcoholic solution 205
See also Control measures, "Lausol Lang."
amines 374
ammonia 202, 772, 949
aqueous 83
ammoniated mercury ointment. *See* Control measures, mercury, ammoniated: ointment.
anabasine sulfate and green soap 839
anise preparations 38
See also Control measures, oils, anise.
anisole 69, 80, 115, 202, 206
antiformin solution 480
"Asid-Getak-gas" 920
"Aulin" 550

Item

Control measures—Continued.
  benzene 56, 69, 202, 324, 389, 402, 620, 828, 842, 938
    See also Control measures: kerosene and benzene; naphthalene-sulfur-benzene solution.
  benzene petrolatum 750
  benzole. *See* Control measures, benzene.
  bergamot. *See* Control measures, oils, bergamot.
  "Betalysol" 273
  bile salt solution 457
  bisethylxanthogen. *See* Control measures, xanthogen, bisethyl.
  boiling water 47
  butter, melted 152
  cade. *See* Control measures, oils, cade.
  calamus, tincture of 115
  calcium 211
  calcium sulfide 189
  calomel pomade 827
  camphor 38, 69, 202, 255, 374
    See also Control measures, naphthalene and camphor.
  camphorated alcohol 482
  camphorated oil 69, 468, 938, 944
  camphorated oil mixture 828
  carbol 344
  carbolic acid. *See* Control measures, phenol.
  carbon disulfide 83, 205, 315, 374, 949
    See also Control measures, "Lausol Lang."
  carbon tetrachloride 202, 222, 242
  castor oil:
    and tallow 247
    See also Control measures, petroleum products and castor oil.
  cedarwood oils. *See* Control measures, oils, cedarwood.
  ceresin ointment 63
  chilling. *See* Control measures, cold.
  Chlorates. *See* Control measures, hydrocarbon chlorates.
  chloroform 83, 115, 202, 947
    water 69
  chloropicrin 269, 333, 371, 589, 613, 630, 632, 938
  cinnamon. *See* Control measures, oils, cinnamon.
  cloves. *See* Control measures, oils, clove.
  cocaine 517
  cold 235, 748
  corrosive sublimate. *See* Control measures, mercuric chloride.
  cottonseed oil 443
  "Cremulsion" 273
  "Creolin" 206
  creosote 267, 269
    See also Control measures: N. C. I. powder; naphthalene and creosote.
  creosote oil and heavy oil 270
  cresol 87, 202, 249, 361, 374, 772, 845
    and naphtha soap solution 152
    powder 115
    preparations 948
      soap-free 273
    soap 107, 827, 947
    soap emulsion 221, 299
    soap solution 115, 129, 750
    water, in connection with steam 349
    See also Control measures: dibrommetacresol; dichlormonobrommetacresol; metacresol; orthocresol; tricresol powder; "Vermijelli" and cresol.
  cresol-kerosene-vinegar mixture 764
  cresol-naphthalene-crude oil mixture 764
  cresotincresol 273
  cresyl 61
  cresylic acid. *See* Control measures, cresol.
  cubé 849
  "Cuprex" 479, 504, 526, 551, 559, 581, 938
  cyanide gas 924, 944
    insecticidal value, comparison with sulfur dioxide 93
  cyanogen 353
  cyanogen chloride, comparison with HCN 585

Item

Control measures—Continued.
  cyclohexanol 80
    See also Control measures, "Lausofan."
  cyclohexanone 80
    and cyclohexanol 80
  "Cyllin" 38
  cytisine 87
  Dalmatian powder. *See* Control measures, pyrethrum.
  depilatories. *See* Depilatories.
  derris 849, 854, 878
    cream 914
    powder 893
    tincture of 871
  diachylon ointment and salicylic acid 408
  dibrommetacresol 332
  dichlormonobrommetacresol 332
  diethylene glycol monobutyl ether acetate 893
  diethylene glycol monoethyl ether 893
  dimethylbenzene. *See* Control measures, xylene.
  dry air 86
    See also Control measures, hot air.
  dry cleaning 326, 339
  dry heat. *See* Control measures, hot air.
  esters 374
  ethane:
    chlorine derivatives 56
    See also Control measures, tetrachlorethane.
  ether 374, 947
  ethyl acetate 427, 437, 502
  ethyl ether 83
  ethylene:
    chlorine derivatives 56
    See also Control measures, trichlorethylene.
  ethylene oxide 782
  ethylene trichloride. *See* Control measures, trichlorethylene.
  eucalyptus. *See* Control measures, oils, eucalyptus.
  fatty substances, preferable to mercurial 389
  fennel. *See* Control measures, oils, fennel.
  formaldehyde 949
  formaldehyde solution 115, 372
  formalin. *See* Control measures, formaldehyde solution.
  garlic 454
  gases 370, 383
    See also specific gas *under* Control measures.
  gasoline 56, 150, 202, 210, 750, 828
    and linseed oil 947
    and oil of sesame 947
    and xylene, oil, and turpentine 948
    soap 938
      spray 100
    See also Control measures: naphthalene-sulfur-gasoline solution; oils and gasoline.
  "Gleitpuder" 211
  "Globol." *See* Control measures, paradichlorbenzene.
  grey ointment 69, 938
  guaiacol 38
  halogen phenols 374
  heat 52, 56, 90, 124, 148, 153, 166, 202, 204, 220, 255, 256, 302, 364, 395, 396, 449, 682, 700, 706, 750, 764, 822, 938.
    See also Control measures: boiling water; hot air; hot water; ironing; sand, heated; steam; sun, exposure to.
  heliotropine 267, 516
  horse sweat, base for anti-louse mixture, Germany, 1942 902
  hot air 47, 88, 115, 123, 140, 173, 183, 206, 238, 256, 278, 293, 296, 338, 361, 396, 422, 433, 443, 465, 586, 843, 845, 884, 917, 924, 935.
  hot water 86, 845, 949
  hydrocarbon chlorates:
    volatile 205
    See also Control measures, "Lausol Lang."

Item
Control measures—Continued.
hydrocarbons:
aromatic 374
See also Control measures: naphthalene; paraffin; petroleum; etc.
hydrocyanic acid 52, 60, 95, 100, 208, 209, 223, 246, 315–317, 319, 378 379, 382, 400, 409, 536, 537, 608, 750, 787, 805, 947, 949.
comparison with cyanogen chloride 585
hydrogen peroxide 64
hydrogen sulfide 681, 819
insecticidal soap. *See* Control measures, soap, insecticidal.
insecticides, requirements of 199, 554
iodoform 38, 87, 202
See also Control measures, N. C. I. powder.
ironing 764, 845
"Izal" 372
Javel water 462
Jeye's fluid, soft soap, and water 944
Juniperus sp. *See* Control measures, oils, cade.
Justicia gendarussa, insecticidal properties 830
"K" preparation 866, 892
kerosene 38, 299, 627, 671, 947, 949
and benzene 87
and cottonseed oil 443
and lightwood oil 924
and olive oil 478, 664
and soapsuds 153
and vinegar 153, 210, 353
See also Control measures: cresol-kerosene-vinegar mixture; "Lethane" and kerosene; "Nassecamoyad."
kerosene-carbolic soap 842
kerosene-soap formula 845
kerosene-soap spray 353
ketone, hexamethylene. *See* Control measures, "Lausofan."
ketones 374
lanolin 782
hydrous, ointment base 601
ointment 63
with vaseline and xylene 782
larkspur, tincture of 664
laundering. *See* Laundry processes.
lauryl thiocyanate, technical, in white oil 914
"Lausex" (a chlorine-hydrocarbon-pyrethrum mixture) 961
"Lausin" (yellow mercuric oxide preparation) 643
"Lausofan" (a hexamethylene ketone) 115, 202, 413
"Lausol Lang" 205
"Laussalbe" 344
lavender. *See* Control measures, oils, lavender.
Legroux's formula 113
Legroux's sachet mixture and vaseline ointment 949
lemon grass 113
"Lethane" and kerosene 879
"Lethane 384" special in white oil 914
lime 344
linseed oil 947
liquor hydrargyri perchloridi. *See* Control measures, mercuric perchloride.
louse powders 80, 180, 181, 211, 269, 333, 906
"Lysol" 38, 202, 221, 249, 299, 344, 764
magnesium carbonate 211
"Malinin" solution (Russian) 948
mercurial lotion 750
mercurial substances, considered dangerous 389
mercuric chloride and acetic acid 573
mercuric oxide, yellow. *See* Control measures, "Lausin."
mercuric oxycyanide 468
mercuric perchloride 193
mercurous chloride 857
mercury 202
ointment 261, 372, 664
mercury, ammoniated: ointment 467
mercury bichloride solution 750
metacresol 454
methane, chlorine derivatives 56
"Methanin" 114

Item
Control measures—Continued.
methylene blue 202
N. C. I. powder (naphthalene, creosote, iodoform) 56, 119, 167, 180, 181, 269, 478, 732, 822, 849, 948, 949
insecticidal properties, laboratory experiments, Russia 612
naphtha:
cleaners' 750
coal tar 843
See also Control measures, cresol and naphtha soap solution.
naphthalene 38, 44, 87, 132, 147, 202, 422, 772, 843, 949
and camphor 158, 166
and creosote 158, 166
and potash soap paste 827
ointment 381
powder 113
solution 205
vapor 151
See also Control measures: cresol-naphthalene-crude oil mixture; "Lausol Lang"; N. C. I. powder.
naphthalene-sulfur-benzene solution 171, 180
naphthalene-sulfur-gasoline solution 171, 180
"Nassecamoyad" (kerosene-carbolic soap solution) 842
nicotine 47
"Nissex" (oxyquinoline preparation) 530, 592
"Nissotax" 558
nitrobenzene, poisoning due to use 399
nitrogen bases 772
oils:
and gasoline 69, 948
and turpentine 948
and xylene 948
anise 115, 255
bergamot 115
cade (*Juniperus* sp.) 132
cedarwood 924
cinnamon 948
clove 115, 132
coal-tar, heavy 947
crude, ointment 167
ethereal 44, 211, 374, 462
eucalyptus 72, 113, 115, 132
See also Control measures, sodium taurocholate and oil of eucalyptus.
fennel 115
heavy 47
lavender 454, 893
lightwood 924
linseed 947
mercurial 517
mineral 167
ointment 180
See also Control measures, "Vermijelli."
pennyroyal 113
peppermint 454
rape 115
sesame 947
sweet marjoram 454
turpentine 69, 255, 782
volatile 56
white, with "Lethane 384" 914
wood tar 405
See also Control measures: camphorated oil; castor oil; cottonseed oil; creosote oil; olive oil; petroleum; etc.
ointments 63, 69, 167, 261, 372, 381, 394, 408, 467, 566, 601, 642, 664, 856, 938, 949
olive oil 12, 827, 947
See also Control measures, kerosene and olive oil.
orthocresol 884
oxyquinoline 530, 592
See also Control measures, "Nissex."
paipu. *See* Control measures, *Stemona tuberosa.*
paradichlorobenzene 115, 202
paraffin 150, 302
and oil of sesame 947
and olive oil 827, 947

Item

Control measures—Continued.
  paraffin—Continued.
    oil. *See* Control measures, petrolatum.
    ointment 372
  paraffinum liquidum. *See* Control measures, petrolatum.
  pennyroyal. *See* Control measures, oils, pennyroyal.
  peppermint. *See* Control measures, oils, peppermint.
  Persian insect powder. *See* Control measures, pyrethrum powder.
  petrol. *See* Control measures, gasoline.
  petrolatum 33, 372, 601, 750, 856
    liquid 573
    See also Control measures, benzene petrolatum.
  petroleum 174, 344, 467, 468, 884, 951
    and olive oil 12
    and vinegar solution 240
    emulsions 782
    products and castor oil 247
    solution 627
    See also Control measures: paraffin; petrolatum; soap, black, with oil and petroleum; yellow wax and petroleum.
  petroleum baths. *See* Baths, petroleum.
  phenol 107, 202, 249, 255, 374, 467, 627, 947, 948
    emulsion 147
    solution 22, 38, 467
    See also Control measures: "Malinin" solution; "Vermijelli" and phenol.
  phenol ethers 374
  phenols 44, 374, 772
    See also Control measures, halogen phenols.
  "Phenolut" 273
  potash 827
  potato starch, used in lice powder 211
  prophylactics, tests 51
  pyrethrum 530, 844, 855, 889, 891
    extract 524
    oil, extract of 948
    ointment 856
    powder 132, 959
    See also Control measures, "Malinin" solution.
    soap 450, 451
      solution 522, 523
    See also Control measures, "Lausex."
  Pyrethrum cinerarifolium 522
  pyroligneous acid 376
  quassia 693
    spirits of 832
  rape. *See* Control measures, oils, rape.
  ratanhia. *See* Control measures, rhatany.
  repellents 70, 255, 339, 827, 828, 843, 913
  rhatany, tincture of 376
  sabadilla:
    acetic tincture of 721, 782
    seed 35, 721
      See also Control measures, veratrine.
    vinegar, wood vinegar as substitute 376
  sachets 158, 166, 269, 333, 478, 948, 949
  salicylic acid 408
  salts, organic and inorganic 374
  salve. *See* Control measures, ointments.
  sand, heated 212
  sesame. *See* Control measures, oils, sesame.
  silver nitrate solution 482
  "SK" preparation 866, 873, 957
  snow: delousing clothes at high altitudes 235
  soap 951
    black 947
      with oil and petroleum 757
    carbolic 842
    formula 845
    green 839
    insecticidal 340
    medicated 468, 944
    naphtha 152
    potash soap paste 827

Item

Control measures—Continued.
  soap—Continued.
    soft 107, 147, 167, 180
      See also Control measures: cresol soap; Jeye's fluid, soft soap, and water; pyrethrum soap; "Vermijelli."
    solutions. *See* Control measures, pyrethrum soap solution; tetrachlorethane soap solution; trichlorethylene soap solution.
  soapsuds. *See* Control measures, kerosene and soapsuds.
  sodium hypochlorite. *See* Control measures.
    antiformin solution; Javel water.
  sodium taurocholate and oil of eucalyptus 457
  "Soleol" 273
  solutions, formulas 566
  "spirit" 193, 454
  spirits of camphor. *See* Control measures, camphor.
  "Sta-way" 893
  stavesacre ointment 467
  steam 47, 48, 65, 115, 142, 174, 210, 249, 325, 339-341, 344, 349, 353, 361, 372, 422, 425, 473, 478, 481, 682, 759, 776, 782, 843, 845, 888, 897, 924, 935.
  Stemona tuberosa, insecticidal properties 783, 830
  sublimate and vinegar 482
  sublimated sulfur. *See* Control measures, sulfur, sublimated.
  sulfur 87, 192, 202, 220, 269, 400, 467, 938, 947, 949
    and creosote solution 269
    dust 573, 750
    flowers of 73
    fumes 753
    ointment 261, 573
    precipitated 41
    sublimated 170
    vapor 83, 372
    See also Control measures, naphthalene-sulfur-benzene solution.
  sulfur anhydride 234, 753
  sulfur dioxide 206, 234, 296, 315, 361, 415, 476, 750
    fumes 775
    head burns from use 651
    insecticidal value, comparison with cyanide gas 93
    See also Control measures, sulfurous acid.
  sulfuric acid 782
  sulfurous acid 52, 115, 286, 608
  sulfurous anhydride. *See* Control measures, sulfur dioxide.
  sun, exposure to 354, 441, 695, 707
  sweet marjoram. *See* Control measures, oils, sweet marjoram.
  talcum, used in louse powders 269
  tallow 247
  tear gas 537
  temperature. *See* Control measures: cold; heat.
  terebinth oil. *See* Control measures, turpentine.
  terebinthine. *See* Control measures, turpentine.
  terpenes 374
  tetrachlorethane soap solution 56
  tinctura calami. *See* Control measures, calamus, tincture of.
  tobacco:
    extract, poisoning from cutaneous use 665
    smoke 83
  toluene 56, 453
  toluol 842
  trichlorethylene 59
    added to pyrethrum solution 522
    soap solution 56
  tricresol powder 70
  turpentine 63, 132, 462, 468, 948
    See also Control measures: "Malinin" solution; oils, and turpentine.
  Van Swieten's solution 12, 782
  vaseline 38, 782
    and naphthalene 87
    and xylene 69, 482, 642, 938

Item

Control measures—Continued
  vaseline—Continued.
    and xylene—Continued.
      ointment 642, 949
    and yellow precipitate mixture 69
    ointment 63
  veratrine 35, 376, 397
  "Vermijelli" (mineral oil and soft soap) 167
    and cresol 87
    and phenol 87
  vinegar 468, 627, 782
    and Van Swieten's solution 12
    See also Control measures: cresol-kerosene-vinegar mixture; kerosene and vinegar; petroleum and vinegar solution; pyroligneous acid; sabadilla vinegar.
  "Volck" 570
  wax. *See* Control measures, yellow wax and petroleum.
  wood vinegar. *See* Control measures, pyroligneous acid.
  wool fat. *See* Control measures, lanolin.
  xanthogen, bisethyl 550
  xylene 83, 132, 202, 389, 467, 627, 642, 782
    ointment 601
    See also Control measures: gasoline and xylene, oil, and turpentine; oils and xylene; vaseline and xylene.
  xylol. *See* Control measures, xylene.
  yellow wax and petroleum 468
  "Zyklon B" 537
  See also Armies, disinfestation; Bathing; Brushing; Disinfestation; Shaving; Insecticidal poisoning; Louseproofing.
Cook, S. S 664
Cooper, E. A 265
"Cooties." *See* genera *Pediculus* and *Phthirus* *and* subheads *under* Armies.
Coplans, M 407
Cordier, R 717
Corey, Herbert 231
Corlette, C. E 516
Cornbleet, Theodore 750
Corsini, A 158
Covell, G 718, 719
Crab louse. See *Phthirus pubis.*
Cragg, F. W 440, 441
Cramer, Alec 916
Craufurd-Benson, H. J 881, 882
  louse powder developed by 822
Creel, R. H 93
Criado Cardona, Rafael 917
Cruickshank 918
Cuénod, A 684, 720, 749, 767
Cumming, J. G 159, 160
Cummings, B. F 39

D

Dakar. *See under* Africa.
Darier, J 232
Davies, F. C 233
Davizé, G 192
Debreuil, G 161
Delanoë, G 517
Delousing. *See* Disinfestation.
Demobilization. *See under* Armies, disinfestation.
De Napoli, F. *See* Napoli, F. de.
Denzer, B. S 118, 190, 191
Depilatories 264, 294, 782
Dermatology, war problems 835, 910
  See also Skin, human.
Desensitization experiments 646
Deutsche Gesellschaft für Angewandte Entomologie 319
Diacono, H 522–524
Dionigi, A 665
Di Pace, I. *See* Pace, I. di.
Disease. *See* Human disease.
Disinfestation 287, 465, 536, 741, 772, 798, 822, 904, 924, 925, 944, 955
  apparatus 114
    atomizer 270
    cabinet for both person and clothes 753, 775
    drum type 897
    heat type 449
      portable 124, 192, 841

Item

Disinfestation—Continued.
  apparatus—Continued.
    hot-air chamber 238
      Hartmann design 293, 433
    hot-air type 173, 203, 338, 586, 845, 917
      floor-heating system 123
      Ingram design 465
      Orr design 278
      Vondran design 88, 183
    portable type 883, 917
    steam type 142, 203, 325, 341, 473, 478, 481, 750, 845, 921
      portable 226, 732, 745, 897, 918
      railway cars 48, 250, 251, 252
      Serbian barrel 251, 252, 372, 883
    See also Laundry processes.
  Argentina 414
  delousing stations 115, 938, 947, 949
    China 400
    diagrams 917
    Germany, Frankfurt am Main 335
    Montenegro 257
    Poland 926
    Spain 951
    Sudan 452
  floors 123, 372
  German settlers in occupied Poland 1939-40 890
  Germany 349, 752
    prison camps 935, 955
  Great Britain, prehospital 867
  huts 750
    temperature determination 148
  methods 115, 206, 264, 271, 276, 296, 339, 393
    gases 536, 608, 829, 949
    Kharkov Typhus Commission recommendations 317
    Rubner's method 206
  Mexican immigrants to United States 103, 160, 194, 210
  travelers 210
  Turkey 426
  United States 548
  See also Armies, disinfestation; Bathing; Bedding; Buildings; Clothing, disinfestation; Control measures; Louseproofing; Personnel in control work, protection.
Doctors. *See* Personnel in control work, protection.
Donald, C 919
Doncaster, L 365
Dreuw 40
Drug addict: repellent to lice 368
Dub, L 408
Dubreuilh, W 237, 442
Ducommun, F 721
Duguet, J 768
Dummer, Clyde 606
Duncan, F. M 219
Dunn, L. H 443, 472, 473
Durand, P 571
Duval, H 431

E

Ebert, B 75
Eckstein, F 802, 920
Ectoparasites, host resistance, role of vitamins 934
Ectoparasites of man:
  relation to phlyctenular eye disease 692
  skin reactions to 615
  See also Lice; *and* genera *Pediculus* and *Phthirus.*
Ecuador, plague, etiology 599
Eggs 32, 156, 314, 569
  destruction 78, 86, 88, 221, 266, 299, 324, 340, 413, 502, 558, 721, 783, 805, 871, 926, 959
    For specific control measures *see under* Control measures.
  development 108, 254, 365
  distinguishing characteristics 569
  experimental work 663
  formation 678
  hatching 623, 629, 874
    spines 623
  historical note on 280
  location 926
  production 254, 870
  secretion for attachment 810

Item

Eggs—Continued.
  temperature, effect on 254, 629, 805, 825, 874
  viability 320, 630, 959
  See also *Pediculus humanus corporis*, eggs; *Pediculus humanus humanus*, eggs; *Phthirus pubis*, eggs.
Egypt, typhus fever, incidence 343
Eire, typhus fever in Drogheda 801
Eire Department of Local Government and Public Health 801
EKSTEIN, E 94
ELBERT, B 141
Ellice group, Anoplura 515
EMRYS-ROBERTS, E 238
England. *See under* Great Britain.
ENSOR, H 239
Epidemics 110, 154, 207, 250, 251, 356, 367, 371, 384, 392–394, 426, 478, 509, 576, 607, 746, 754, 798, 876, 877, 880, 907, 937, 948, 958
Equipment of armies, disinfestation. *See* Armies, disinfestation.
Eritrea, relapsing fever, transmission 911
ESCHERICH, K 95
ESCOMEL, E 499, 685
ESKEY, C. R 599
Eskimos:
  Alaska, lice in pre-Columbian remains 686
  Pediculus humanus humanus among 578
Ethiopia:
  relapsing fever 915
    laboratory study 773
    transmission 746
      Scioa region 744
  rickettsial studies 837, 838
Europe:
  typhus fever 908
  See also under names of countries.
Evacuees. *See under* Children.
EVANS, FREDERIC 921
EWING, H. E 500, 538, 648, 666, 686, 722, 769
Eye disease, pediculosis as cause 29, 463, 692, 726, 758
Eyebrows, infestation with lice 64, 197, 471
Eyelashes, infestation with lice 64, 321, 474, 517, 568, 685, 815, 865
Eyelids, inflammation due to lice 743
EYSELL, A 41

F

FAHRENHOLZ, H 42, 162, 311
  descriptions of Anoplura, criticism 387
FANTUS, BERNARD 750
FAREZ, P 723
FARJOT 600
Feces of lice, source of typhus infection 334, 738, 801, 806, 935, 944
FEDERSCHMIDT 366
FEJGIN, BRONISLAWA 724
FELIX, A 922
FELS, J 240
FELT, E. P 163, 241
FENG, L. C 615, 715
FERGUSON, CHARLES 601
FERGUSON, E. W 539
FERNANDO, WILFRED 649
FERRARI, A 164
FERRIÈRE, CH 367
FERRIS, G. F 55, 96, 444, 667, 687
FIEBIGER, J 43
FILIPPINI, A 409
Filterable virus diseases 587
FINDLAY, G. M 864
FINKEL, A 650, 668
First aid in war, field manual, United States Army 845
FISCHER, G 923
FISCHER, ILSE 688
Five-day fever. *See* trench fever.
Fleas:
  Australia 556
  control measures 70, 286, 849
  disease vectors:
    relapsing fever, Abyssinia 746

Item

Fleas—Continued.
  disease vectors—Continued.
    typhus fever:
      Nigeria, endemic strain 930
      North China 877, 940
  rearing 792
FLETCHER, A. E 772
Flies, means of lice transmission 377
Floors, disinfestation 123, 372
FOLEY, H 30, 72, 428, 429, 459
FONYÓ, J 97
FOOT, KATHARINE 312, 313, 368
Formica fusca, louse predator 161
FOSTER, M. H 242
FOULERTON, A. G. R 165
FOURNIER, J 807
FOX, CARROLL 518
FRAENKEL, E. M 924, 925
FRÄNKEL, SIGMUND 44
France:
  louse-control work 379
    public schools, Le Havre 12
  typhus fever transmission, Marseilles 571
France. Ministère du Commerce et de l'Industrie 523
FRANCHINI, G 602, 689
FRENCH, H 243
French Equatorial Africa, relapsing fever, Wadi 618
French Indochina, typhus fever:
  prisoners, Tonkin 576
  transmission 730
FREUND, LUDWIG 314, 369, 519, 540, 557, 669
FREYMUTH, ALFRED 315, 316, 370
FRICKHINGER, H. W 98, 99
FRIEDMAN, L.S 865
FRIEDMAN, M 926
FRIEDMAN, R 670
FRIEDRICH, F 651
FULLE, G. B. C 45
Furniture, disinfestation 944
FURNO, A 166
FUTAKI, KENZO, studies on typhus fever 144

G

GADD, A. G 927
GALAVIELLE 450, 451
GALEWSKY 46
GALKOV, V. P 317
GALLER, O 371
GALLI-VALERIO, B 47, 244, 520
GAMBIER, A 452
GANTER, W 805
GARCIA, E. Y 751
GARRISON, G. L 383
GÁUDARA, G 445
GELLERT, H. H 372
General Malaria Committee, Madras, 1913 7
GERLACH 521
Germany:
  louse control 335, 793, 833, 902, 920
    Berlin 342, 349
    Frankfurt am Main 335
    in schools 521
    military prison camp 939
      Hammerstein, West Prussia 49
    problems, occupied Poland, 1939–40 890
    review 143
  louse infestation, Nürnberg, 1919 366
Germany. Reichsgesundheitsamt 374, 376
GHOSH, S. M 891
GILCHRIST, H. L 373
GINESTOUS, E 474
GIROUD, PAUL 676, 698
GLINGAR, A 48
Gold Coast, relapsing fever, transmission 491
GOLDBERGER, JOSEPH 9, 10, 17–19
GOLDMAN, LEON 865
GOLZOWA, R. D 658
GOMES, LUIZ DE SALLES 652
GONZALEZ, A. A 446
GOODWIN, T. H 167
GORKINA, A. N 866
GOUDARD, H 690
GOUGEROT, H 725

Item

Great Britain:
  Anoplura and their hosts 169
  England:
    louse-control work 852, 867, 900
      head lice in children, Borough of Haslingden 903
      incidence of head lice 885
      London 881
    pediculosis 850, 851
      in school children 345, 398, 900
    typhus fever 34, 853
  relapsing fever 5
  typhus fever 34, 853
    control 867, 880
    transmission 560
Great Britain. Ministry of Health 827, 867
Great Britain. War Office 168, 868, 928
  Committee for the Study of Trench Fever 245, 406
Greenland, eastern: Arthropoda 578
Greimer, Karl 752
Grimshaw, P. H 169
Groot, H 828, 869
Gross, Malcolm 475
Grubbs, S. B 100
Gruber, G. B 476
Grübel, E 501
Grundherr, F. von 558
Grúsz, F 447, 477
Guatemala:
  arthropods of medical interest 760
  typhus fever 760
Guimarais, A 448
Guinea pigs:
  blood platelets, experimental use 436
  inoculation with typhus 436, 446, 781
    Colombian strain 756, 869
    injection with louse extracts 698
  typhus sensitization tests: reaction to louse extract 646
  typhus vaccination experiments 640
Guitel, F 170
Gum boots, as protection against lice 944
Gunn, J. A 171
Guyton, T. L 541
György, P 770

H

Haddow, A. J 870, 959
Haight, H. H 101
Hailer, E 374
Hairdressing, relation to louse control 901
Halberkann, J 102
Hall, H. C 103, 172
Hamburg. Zoologisches Museum, collections 162
Harrison, L 104, 318
Hartmann, Armin 173
Hartmann hot-air apparatus 293
  tests 433
Harvey, W. C 829
Hase, Albrecht 49–51, 105–108, 319, 320, 410, 411, 614, 792, 793
Haseman, L 691
Haxthausen, H 871
Head louse. See *Pediculus humanus humanus.*
Health, public, and pediculosis 637, 799
Heat:
  effect:
    on insects 695, 707
    on lice 44, 49, 182
  See also under Control measures.
Hehir, Patrick 478
Heinonen, O 692, 726
Heinsius, D 727
Helmets, as protection against lice 753
Herczfeld, L. E 794
Herms, W. B 795
Herzig, Anna 796, 797
Hetsch, H 246
Heymann, B 52, 109
Hicks, J. R 174
Hill, A. A 321
Hill, Harry 829
Hillenberg 502
Hindle, E 175, 322, 412, 929
Hirschfelder, A. D 323, 332, 333
His-Werner disease. *See* Trench fever.
Hoeppli, R 615, 830

Item

Hoffmann, W 741, 798
Hohorst, W 479
Hollis, W. A 324
Holmes, W. H 831
Homan, George 247
Hookworm, Samoa 525
Hopkins, G. H. E 515
Hornus, Pierre 590
Hospitals 798
  patients, delousing before admission 240, 867, 938
  personnel. *See* Personnel in control work, protection.
Household insects 541, 542, 691
Howard, L. O 248
Howell, B. W 110
Howlett, F. M 176
Hubbard, S. D 249
Hudson, A. C 29
Hübner 111
Huet, Célestin 12
Hughes, William 930
Hull, T. G 872
Human disease:
  and arthropods 43
  and lice 39, 155, 202, 217, 282, 297, 298, 330, 390, 424, 548, 591, 605, 609, 661, 677, 703, 755, 779, 790, 831, 868.
    historical aspects 709, 937, 948
    recent work, 1941 860
    war conditions 31, 35, 130, 227, 339, 367, 755, 833, 852, 937
    wastage from 239
    See also Armies, and insect-borne disease; Skin, human; *and under* specific diseases.
  tropical and subtropical countries, British War Office memorandum 868
Humidity, effect:
  on insects 634
  on lice 49, 634
Hungary, louse control:
  legislation 799
  new preparation 794
Hungary. Magyar Királyi. Belügyministerium 799
Hunter, William 250–252
Hurst, Arthur 931
Husk, C. E 118, 190, 191
Hutchison, R. H 253, 254, 325, 326, 340, 424, 425
Hydrogen-ion concentration, in arthropod intestine 658
Hygiene, preventive, textbook 703

I

Ilvento, A 255
Immigrants:
  delousing 103, 174, 194, 890
  typhus fever among 421
Immunity. *See under* Typhus fever.
India:
  louse-control work 891
    Bombay docks delousing station 378
  relapsing fever:
    Agra and Oudh Provinces 441
    Chitral 680
    control measures 354
    epidemiology 440
      Madras Presidency 509
    Raichur 483
    seasonal occurrence, transmission, treatment 484
  South India, *Pediculus humanus humanus,* population studies 824
  temperature reactions of lice 176
  typhus fever:
    Kumaun Hills, Bhim Tal area 761
    Simla Hills 718, 719
Indians, Texas, lice in pre-Columbian remains 686
Ingram, A 491
Ingram, J. H 449
Ingram, J. T 728
Insecticidal poisoning:
  nitrobenzene 399
  tobacco extract 665
Insecticides. *See* Control measures.

Item

- Insects. *See* Household insects; Human disease, and lice; Medical entomology.
- Institutions, louse and scabies problems 856
- International health officers, louse-control work 938
- Irish Free State. *See* Eire.
- Italy, louse-control work 224, 255
  - sachets 158
- Ivanòva, S. Z 873

J

- Jackson, T. W 38
- Jacobs 256
- Jacobsthal, E 112
- Jameson, R. E 573
- Janke. H 413
- Japan: typhus fever, etiology 144
- Jemen. *See* Arabia, Yemen.
- Jeney, A. von 480
- Jenkins, C. F. H 932
- Jörgensen, J. V 693
- Joffick, S. D 481, 671
- Johannsen, O. A 778
- Johns Hopkins Hospital, Baltimore 7
- Jones, F. W 933
- Jordan, E. O 771
- Jordan, J. H 772
- Jørgensen, Gustav 832
- Jouveau-Dubreuil 375
- Jürgens 53
- Juìllet, A 450, 451, 522, 524
- Jungmann, P 177
- *Justicia gendarussa*, insecticidal properties 830
- Justitz, S 257

K

- Kabaker, J 635
- Kantor, J. L 54
- Kartman, Leo 934
- Keilin, D 327, 420, 603
- Kellogg, V. L 55
- Kemper, H 833
- Kennedy, J. C 328
- Kerrest, J 452
- Kharkov. National Commissariat of Health Protection, Extraordinary Commissariat for the Control of Typhus Fever 317
- Kinloch, J. P 56, 141
- Kirk, R 773, 800
- Klein, F 617
- Kligler, I. J 710, 729
- Klövekorn, H 503, 672
- Klose, H 935
- Knaffl-Lenz, E. von 57
- Knight, K 903
- Knight, S 936
- Kobler, John 937
- Koch, J 178
- Kolle, Wilhelm 792
- Kompaneetz, A. *See* Kompaneez, A.
- Kompaneez, A 555, 584
- Kraus, R 414
- Kritschewski, I. L 653
- Kubo, Michio 774
- Kuczynski 258
- Kuczynski, M. H 177
- Külz, L 179
- Kuhn, P 58, 558
- Kuibyshev Military Academy, Union of Soviet Socialist Republics 819
- Kulka, Wilhelm 59

L

- Laigret, Jean 639, 657
- Lambert, Alexander 259
- Lambert, S. M 525
- Lamson, G. H., Jr 260
- Landois, L 2, 3
- Lange, L 376
- Lange, W 183
- Larvae 108, 486, 959
- Lasnet 604
- Laundry processes:
  - in louse-control work 266, 425
    - machinery 340

Item

- League of Nations, Health Organisation 711. 716
- League of Red Cross Societies. Typhus Research Commission to Poland 393, 464
- Lebailly, C 385, 753, 775
- Lebedeff, V. N 60
- Lécaillon 453
- Leeson, H. S 874, 875
- Le Fanu, G. H 491
- Le Gac 618
- Legendre, Jean 61, 113, 141
- Legrain 482
- Legroux, R 62, 141
- Lenz, A 415
- Leon, N 377
- Lépine, P 673, 730
- Leprosy:
  - etiology 583
  - transmission 583, 739
    - role of the louse 588
- *Leptopsylla segnis*, typhus fever vector, Peiping, China 834
- Lessard, Richard 938
- Levine, S 729
- Lévy, G 565
- Lice 669, 790, 823, 956
  - and civilization, historical review 71
  - and medical zoology 1
  - and races of man 6, 42
  - bacterial infections 83, 125, 135, 138, 497, 564, 806
    - *Borrelia carteri* 483
    - hereditary 30, 126, 419
    - *Rickettsia* 412, 428, 768, 788, 820
    - *Rickettsia rocha-limae* 510, 837, 838
    - *Rickettsia weigli* 733, 796
    - *Spirochaeta exanthematotyphi* 144
    - *Spirochaeta hispanica* 590
    - spirochetes 385, 602
  - bibliography 185
  - biology 47, 113, 244, 548, 614, 793, 949
    - digestive processes, relation to winter relapsing-fever epidemics 392
    - habits and behavior 39, 163, 614, 948
      - seasonal prevalence 469
    - relation to control measures 253
    - relation to epidemiology of typhus 356
    - *See also* Lice, life history.
  - bites. *See* Bites of lice, effects.
  - color, effect on. *See under* Color.
  - control measures. *See* Control measures.
  - disease vectors 39, 82, 330, 605, 790, 795
    - cerebrospinal meningitis 195
    - leprosy 583, 588
    - Marseilles fever 571
    - relapsing fever 136, 139. 295, 328. 375, 385, 392, 484, 534, 535, 563, 564, 598, 604, 736, 786, 911
    - smallpox 164
    - trachoma 720, 768, 788
    - trench fever 137, 213, 229, 233, 245, 304, 355, 406, 931
    - typhus fever 30, 66, 92, 110, 135, 356, 429, 446, 485, 560, 576, 577, 580, 607, 653, 724, 754, 801, 807, 930, 937, 940, 941, 952, 953, 958
  - dissemination 422, 548
  - life history 39, 281, 424, 661, 793
  - photomicrographs 134
  - "SK" preparation, effect on 957
  - symbiosis 655, 933
  - vitality 422
  - *See also* Anoplura; Pediculosis; *and* genera: *Pedicinus*; *Pediculus*; and *Phthirus*.
- Liebau, Gerhart 939
- Light, effect on:
  - insects 695, 707
  - lice 336
- Lillingston, Claude 674
- Lipstein, I 731
- Liston, W. G 378
- Literature and the louse 785
- Liu, Wei-t'ung 834, 876, 877, 940
- Lloyd, L 221, 299, 303, 329, 330
- Lodging houses:
  - doss houses, louse control in 938
  - source of louse infestations, London 881
- Loewenstein, Georg 526, 559
- Lokhov, M. G 632
- Lomholt, Sv 261

Item

London County Council. Education Committee 297
London School of Hygiene and Tropical Medicine 515
Long, J. D. 694
Lorange, O 24
Lortat-Jacob, L 482
Loukitch, G 767
"Louse index," estimation and use in control 955
Louseproof suits and garments 272, 938
  Great Britain 867, 924
Louseproofing 171, 180, 181, 203, 215, 267, 269, 332, 333, 339, 822, 866, 912, 913, 948
Lucas, D. R 262
Lutrario 379

M

MacArthur, W. P 560
Macchiavello, A 941
MacCormac, H 835
McCormack, J. D 801
McColloch, C. C 180
McCulloch, W. E 527
McDaniel, E. I 836
MacDonald, M 878
Macdougall, R. S 181
MacHaffie, L. P 879
Mackenzie, M. D 880, 942
Mackie, F. P 13, 25
McKinley, E. B 587
Macleod, J 881, 882
  louse powder developed by 822
McMahon, J 959
Maculae coeruleae. *See* Blue spots.
Maheux, G 542
Malaria, transmission, tests with lice negative 531
Mallannah, S 483
Mallophaga 14, 486, 826
  follicular epithelium 688
  Melanesia and Polynesia 515
  symbionts 621
Mammals, North American, Anoplura of 55
Man, races, lice infesting 6, 42
Man and disease. *See* Human disease.
Manchuria:
  insects of medical importance, Shinkyo area 803
  Phthirus pubis 645
  relapsing fever, transmission 139
  typhus fever, proved true typhus 625
Mancuso, B 695
Mandoul, H 331, 380, 605
Manifold, R. H. C 883
Manuĭlova, N. S 549
Mareschal, Pierre 813
Margarot 450, 451
Mariani, G 837, 838, 884
Maritime health officers, for louse work 938
Markianos, J 588
Marschalkó, Thomas 63
Marseilles fever 571
Martin, J. M 263
Martinez, L. E 828
Martini, E 182, 264, 802
Marzinovsky, E. I 207
Marzocchi, Vittorio 26
Masayama, S 696
Matheson, Robert 633
Mathis, C 561, 574, 619
Mayer, Georg 114
Mayer, K. W. G 115
Mayoral, Pedro 828
Mazza, S 943
Medical entomology 7, 339, 357, 424, 518, 591, 633, 778, 795
  Australia 539
  China 545
  See also Human disease and lice.
Medical parasitology, handbook 701
Medical zoology 1, 591
  Guatemala 760
Medicine, preventive, textbook 703
Medicine, tropical, textbook 791
Megaw, J. W. D 575, 654, 944
Mehta, D. R 719
Meierhof, E. L 64
Meinert, F 4
Melanism in lice, inheritance 175

Item

Melanoderma, parasitic. *See* Vagabond's disease.
Mellanby, K 634, 675, 885, 901, 945
Meltzer, O 65
Meningitis. *See* Cerebrospinal meningitis.
Mense, C 66
Merklen, P 635
Mesnard, J 576
Mesopotamia:
  dry summers, effect on lice 363
  sanitary conditions in Mosul 458
Mexican immigrants:
  delousing 160, 194, 210
  typhus quarantine against, Texas 103
Mexico:
  Onchocerca volvulus, transmission experiments 895
  typhus fever 10, 34, 159, 191, 210, 597, 625
    etiology 9, 118
    mild type, Zocoalco 808
Mexico. Comisión Central para el Estudio del Tabardillo 446
Mexico. Universidad Nacional. Instituto de Biologia 611
Mice:
  relapsing fever infection in, transferred by lice from monkeys 657
  Rickettsia isolated from, in North China typhus epidemic 834, 877
Michael, Herbert 752
Michigan Department of Health 946
Michigan State College. Extension Division 836
Miessner, H 183
Migrants, supervision 938
Milian, G 417
Milton, F 484
Minnesota University 333
Missouri Agricultural Experiment Station 693
Mjöberg, Eric 14
Moguilevitch, E 732
Monkeys:
  infection with shrew spirochetes, experiments 574
  parasites 540, 666, 769
  relapsing fever experiments with 657
Montenegro, louse-control work 257
Moon, R. O 116
Moor, C. G 265, 381
Moore, William 266–269, 323, 332, 333
Mooser, H 606, 636, 947
Morale, effect of lice on 231
Morocco:
  pediculosis in Mazagan 517
  relapsing fever, isolation of *Spirochaeta hispanica* 590
Morstatt, H 418
Moscow. National Commissariat of Health Protection 388
Moscowitz, A 340, 425
Mosing, H 733, 754
Mouth parts of lice. *See* Pediculidae, piercing and sucking structures; *and subhead* anatomy, under *Pediculus humanus; Pediculus humanus corporis; Pediculus humanus humanus.*
Mueler 270
Müller, Eduard 271
Mueller, G 334
Müller, Josef 67
Mummies, lice collected from 500
Murchison, Charles 5
Murine typhus. *See* Typhus fever.
Murray, A 6
Musca domestica, agent for transmission of lice 377
Musselius, A. A 454
Mycetocyte cells, symbionts of *Pediculus* in 621

N

Nabokov, V. A 589
Näslund, C 382
Napoleon's return from Moscow, typhus epidemic following 948
Napoli, F. de 234
Nariño, Colombia. Laboratorio de Higiene 828
Nataf, R 720, 749, 767
National defense, lice in relation to 894
National Research Council 248
Nauck, E. G 886
Neifert, I. E 383

Item

- Nelson, S. A. 637
- Nephrocyte cells, function 420
- Nesmelova, Z. N. 655
- Neufeld, F. 272, 273
- New Hebrides, Anoplura 515
- New York:
  - Brill's disease endemic in 36
  - delousing immigrants, port of New York 174
  - schools, New York City 28, 274
- New York Academy of Medicine, symposium on typhus fever 34
- New York (City) Department of Health 28, 249, 274
- New York State Museum 163
- New Zealand. Mandated Territory of Western Samoa, Department of Health 525
- Newcomb, C. 384
- Nicoll, W. 184
- Nicolle, Charles 15, 20, 21, 27, 385, 419, 543, 544, 562–564, 590, 638–640, 656, 657, 676, 697–699
- Niemann, Hermann 504
- Nigeria:
  - relapsing fever, case studies 527
  - typhus, endemic, transmission, Southern Nigeria 930
- Nits. *See* Eggs.
- Nobiling 386
- Noeller, W. 117
- Nogue 528
- Nowotny, M. 335
- Nutrition of host, relation to pediculosis 635, 770, 811, 934
- Nuttall, G. H. F. 7, 185–188, 275–277, 327, 336, 337, 387, 420, 603
  - louse papers in Parasitology, notes on 263

O

- Obermiller 189
- Ocaranza, F. 485
- Office International d'Hygiène Publique [Paris] 379, 490, 585, 598, 740, 754
- Oiled silk 272
- Oilskin 272
- Olitsky, P. K. 118, 190, 191, 421, 887
- Olle 192
- Ollerenshaw, R. G. W. 888
- Olmer, D. 571
- *Onchocerca volvulus*, transmission, experimental work in Mexico 895
- Ono, Z. 803
- Ontario Entomological Society 513
- Oosthuizen, M. J. 700
- Opie, E. L. 290, 291
- *Ornithodoros* spp., relapsing fever vectors 544
  - Central Africa 543
- Oroyo fever, transmission. Guáitara River region, Colombia 804
- Orr, H. 338
  - design for hot-air disinfestor 278
- Otto 755
- Oudemans, A. C. 846
- Ovicides. *See* Eggs, destruction.
- Owczarewicz, Leon 948

P

- Pace, I. di 23, 235, 236
- Pacific coasts, bartonellosis focus 950
- Pacific Science Congress, 6th, 1939 941, 943, 953, 954
  - *See also* Pan Pacific Science Congress, 2d, 1923.
- Pagliani, L. 278
- Paipu. See *Stemona tuberosa*.
- Palestine: relapsing fever, experimental work 909
- Palfrey, F. W. 464
- Pan African Health Conference, 1935 711, 716
- Pan Pacific Science Congress, 2d, 1923 539
  - *See also* Pacific Science Congress, 6th, 1939.
- Paquet, Berchmans 949
- Parasites, speciation and host relationships 470
- Parasitology:
  - research and technique 520
  - textbook 677, 712, 826
- Parker, R. 193
- Parman, D. C. 620
- Patino, L. 756
- Patiño-Camargo, Luis 804, 950
- Patton, W. S. 545, 591
- Patzsch, Herbert 776

Item

- Paul, J. H. 756
- Pautrier, L. M. 565
- Pavlovskiĭ, E. N. 16, 388, 455, 456, 487–489, 505–508, 529, 677, 701
- Pawlowsky, E. N. *See* Pavlovskiĭ, E. N.
- Payot, F. 389
- Pazzini, A. 777
- Pchenichnof, A. V. *See* Pshenichnov, A. V.
- Peacock, A. D. 119, 141, 279, 407, 422, 423, 546
- *Pedicinus longiceps*, typhus vector, tests 434
- Pediculidae:
  - morphology 11
  - piercing and sucking structures 16
  - studies 14
  - *See also* specific louse.
- Pediculosis 143, 232, 417, 495, 728, 835
  - and anaphylaxis 546
  - and riboflavin deficiency 770
  - blood picture in 447, 650, 665, 846
  - control measures 35, 46, 64, 143, 150, 166, 171, 193, 224, 234, 284, 397, 402, 408, 450, 451, 467, 479, 482, 512, 566, 601, 611, 642, 665, 725, 742, 802, 844, 891, 892
    - For specific control measures *see under* Control measures.
  - diagnosis 91, 725
  - epidemiology 802
  - history 2, 3, 777
  - in primates, phylogenetic relationship 594
  - localization 416
  - of the eyebrows 64, 197
  - of the eyelashes 670
  - of the scalp 35, 397, 471, 482, 503
    - and eye disease 29
    - cause of angina 595
    - hairdressing, relation to 901
    - increase, 1911–20 391
  - pubic 611, 616
    - diagnosis 725
    - treatment 150, 408, 566, 725
    - See also *Phthirus pubis*.
  - public health problem 637, 799
  - relation to disease:
    - anemia 635
    - melanoderma 431
    - phlyctenular eye disease 726, 758
    - *See also* Skin, human, disease and lice; *and under* names of diseases.
  - schools 12, 28, 398
  - seasonal occurrence 105
  - symptoms 360
  - See also *Pediculus; Pediculus* spp.; *Pediculus humanus; Pediculus humanus humanus; Pediculus humanus corporis; Phthirus pubis; and under* Children.
- *Pediculus* 310, 712
  - bacterial infections:
    - *Rickettsia weigli* 683
    - *Spirochaeta crocidurae* 574
    - See also *Pediculus*, rectal injections.
  - bites, effects of 488, 506, 508, 529
  - disease vector 45, 533
    - plague 370
    - relapsing fever 509, 561, 562, 618, 639
    - tsutsugamushi disease 699
    - typhus fever 698, 702
  - experimental work 533, 683
  - extracts:
    - cutaneous reaction tests 112
    - sensitization of guinea pigs 646
    - typhus infection tests 698
  - host relationships 470
  - rectal injections 492, 533
  - symbionts, mycetocyte 621
  - taxonomy 387, 470, 648, 687
- *Pediculus* spp. 8, 542, 633, 701
  - anatomy 388, 533
    - genitalia, male 557
  - bibliography 185
  - biology 533
    - bionomics, Australia 556
    - See also *Pediculus* spp., life history.
  - bites, effects of 488, 506, 508, 529
  - control measures 371, 388, 453, 533, 556, 664
    - For specific control measures *see under* Control measures.

Item

Pediculus spp.—Continued.
- disease vectors 677
  - Oroyo fever 804
  - relapsing fever 20, 21, 528, 543, 544, 562, 619, 639.
  - tsutsugamushi disease 699
  - typhus fever 575, 718
- experimental work, technique 533
- geographical and host distribution 538
- household pests 542, 691
- life history 388
- rearing 533
- taxonomy 350, 538, 540, 557

Pediculus capitis. See *Pediculus humanus.*

Pediculus humanus 4, 248, 445, 829
- anatomy:
  - copulatory apparatus 188
  - mouth parts 4, 279
    - proboscis 432
  - tarsal stigmata 567
  - thorax, nephrocyte cells in 420
- bacterial infections:
  - of copulatory apparatus 401
  - *Rickettsia* 466, 493, 514, 597, 683, 733, 734, 796, 813
    - transmission tests 434, 705
  - *Spirochaeta novyi* 731
  - *Spirochaeta persica* 909
  - See also *Pediculus humanus*, rectal injections.
- bibliography 276
- biology 67, 81, 186, 445, 731
  - abnormalities 327
  - broods:
    - male and female 175
    - size prediction 494
  - copulation 188
  - feeding, mechanism of 279
  - growth 763
  - habits and behavior 942
  - hermaphroditism 327
  - intestinal tract, hydrogen-ion concentration in 658
  - longevity:
    - survival in salt or tap water 300
    - thermal death point:
      - relation to atmospheric humidity 634
      - relation to starvation 675
  - melanism, inherited 175
  - sex ratio 336
  - See also *Pediculus humanus*, eggs; *Pediculus humanus*, life history.
- Chinese medical literature 830
- control measures 38, 57, 181, 276, 299, 338, 377, 443, 445, 452, 462, 498, 706, 753, 780, 782, 830, 884, 959
  - hair-clad areas 405
  - For specific control measures *see under* Control measures.
- disease vector 187
  - bartonellosis 847, 950
  - leprosy 739
  - malaria, negative tests 531
  - relapsing fever 292, 452, 459, 491, 527, 641, 657, 680, 689, 714, 737, 746, 766, 773, 800
  - tabardillo 597
  - trachoma 684, 749, 767
  - trench fever 291
  - typhus fever 155, 302, 622, 636, 638, 656, 660, 673, 676, 716, 730, 735, 738, 740, 761, 834, 840, 942
  - Weil's disease 279
- eggs, hatching spines 623
- humidity, effect on 634
- iconography 337, 603
- intestines, typhus vaccine from 640
- life history 942
- Manchuria 803
- Nuttall's work, notes on 263
- nymphs, pyrethrum, effect on 959
- physiology 445
- rearing 731, 812
- rectal injections 436
- symbionts, physiological relationship 644
- taxonomy 156, 337, 460, 519, 942

Item

Pediculus humanus—Continued.
- temperature, effect on 494, 634, 748
- tracheal system, air in 623
- wartime problems 339, 498

Pediculus humanus americanus:
- pre-Columbian records 686
- taxonomy 666, 722

Pediculus humanus corporis 674, 789, 809, 917
- abnormal location under toe nail 438
- anatomy 67, 131, 388, 662
  - digestive tract 131
    - foregut 432
  - follicular epithelium 688
  - genitalia, male 557
  - mouth parts 104
    - proboscis 432
  - senses and sense organs 896
    - olfactory sense 98, 99, 454, 547
- Australia 184, 539
- bacterial infections:
  - *Bacillus typhi-exanthematici* 190
  - cocci 820
  - *Cocconema pediculus-vestimenti* 549
  - *Proteus* X_{19} 258
  - *Rickettsia* 496, 511, 555, 584
  - spirochetes 715, 915
  - *Strickeria jürgensi*, gen. et sp. n 133
  - See also *Pediculus humanus corporis*, rectal injections.
- biology 49, 50, 67, 68, 74, 81, 106, 127, 128, 255, 316, 662, 942
  - bionomics 67, 146
  - development, effect of temperature 628
  - digestion 610
  - experimental work 821
  - habitat 91
  - habits and behavior 49
    - bloodsucking 610
    - on a drug addict 368
  - longevity and nutrition 870, 875
  - reproduction:
    - fertility 254
    - mitotic division following meiosis 929
    - sex determination 312
    - sex inheritance 322
    - spermatogenesis 313, 365
    - viviparous question 411
  - See also *Pediculus humanus corporis*, eggs; *Pediculus humanus corporis*, life history.
- bites, effects of 323
  - superficial 615
  - systemic 268, 513, 624, 646
- China 545
- control measures 44, 46, 48, 52, 57, 61, 68, 72, 81, 93, 102, 115, 142, 170, 235, 255, 266, 269, 299, 315, 316, 326, 339, 340, 379, 383, 388, 409, 454, 522, 523, 573, 589, 681, 750, 752, 764, 783, 827, 849, 860, 912, 913, 917, 920, 932, 942, 946, 947.
  - For specific control measures *see under* Control measures.
- dermatology, relation to 910
- disease vector 43, 227, 458
  - Oroyo fever 804
  - plague 599
  - relapsing fever 13, 25, 27, 178, 292, 499, 593, 662, 744
  - trench fever 423, 553
  - typhus fever 15, 67, 190, 555, 606, 625, 662, 696, 719, 760, 765, 818, 876, 877, 886, 923, 942, 946, 951.
    - infectivity vs. visibility of *Rickettsia* 626
- ecology 363
- eggs 32, 156
  - attachment 810
  - centrifugation 663
  - description 569
  - destruction 266, 926
  - development 108, 254, 365, 678
  - hatching 629, 874
  - historical note 280
  - location vs. control 926
  - production, relation to nutrition 254, 870
  - viability 320, 630
- experimental work 320, 496, 555, 631, 668, 886, 895

Item

- *Pediculus humanus corporis*—Continued.
  - hosts, blood picture 668
  - humidity, effect on 49
  - larvae, development 108, 486
  - life history 49, 84, 254, 388, 942
  - Mesopotamia 363
  - Nürnberg, 1919 366
  - *Onchocerca volvulus* vector 895
  - photomicrographs 134
  - population studies 882
  - rearing 886
  - rectal injections 820, 886
  - resistance to insecticides 630
    - gut movements as test 81
  - symbiosis 631, 663
  - taxonomy 121, 156, 201, 460, 519, 557
  - temperature, effect on 49, 86, 176, 235, 340, 363, 628, 629, 874, 875
  - vitality tests 320
  - wind dispersal 128
- *Pediculus humanus humanus* 24, 475, 674, 917
  - abnormal location on eyelashes 321
  - anatomy 3, 388
    - genitalia, male 557
    - mouth parts 649
    - senses and sense organs 896
  - Australia 184, 539
  - bacterial infections, rickettsia-like bodies in gut 751
  - biology 47, 942
    - bionomics 146, 541
    - larval stages 486
    - reproduction, spermatogenesis 365, 439
    - See also *Pediculus humanus humanus*, eggs; *Pediculus humanus humanus*, life history.
  - China 545
  - control measures 22, 28, 47, 376, 388, 399, 403, 409, 410, 413, 415, 427, 437, 476, 482, 502, 504, 523, 541, 551, 570, 573, 581, 620, 627, 643, 647, 651, 693, 750, 752, 764, 794, 827, 832, 839, 860, 879, 900, 912–914, 917, 932, 942, 947.
    - For specific control measures *see under* Control measures.
  - disease vector:
    - bubonic plague 694
    - plague 599
    - relapsing fever 214, 499
    - trench fever 553
    - typhus fever 19, 101, 109, 652, 756, 760, 808, 942
  - eggs:
    - attachment 810
    - description 156, 569
    - destruction 480
  - England, incidence in 885, 903
  - experimental work 520
  - Greenland, Eskimos infested 578
  - India, South 824
  - life history 388, 942
  - light, effect on 695, 707
  - *Onchocerca volvulus* vector 895
  - population studies 713, 747, 762, 824, 862, 945
  - Samoa 525, 572
  - taxonomy 121, 156, 201, 460, 519, 538, 540, 557
  - temperature, effect on 176, 695, 707
  - vitality 157
  - wartime increase 391
  - *See also* Children.
- Pennsylvania Department of Agriculture 541
- Pergher, J 702
- Périn, Lucien 566
- Peripharyngeal abscess, associated with pediculosis 595
- Pernet, G 280
- Persia, relapsing fever at Meshed 430
- Personnel in control work, protection 203, 272, 828, 867, 919, 924, 935, 938, 939, 942, 944
- Peru, relapsing fever in Arequipa 499
- Perutz, A 659
- Peters, B. A 457
- Peters, G 805
- Philippine Islands: typhus fever, transmission 751
- Phlyctenular disease of the eye 692, 726, 758
- Phtheiriasis, phthiriasis. *See* Pediculosis.
- *Phthirius.* See *Phthirus.*
- *Phthirus chavesi*, on eyelashes 685

Item

- *Phthirus inguinalis.* See *Phthirus pubis.*
- *Phthirus pubis* 26, 701, 712, 829
  - abnormal locations 237, 348, 442
    - back of hand 582
    - beard 471
    - eyebrows 471
    - eyelashes 517, 568, 865
    - scalp 471, 503, 861, 865
  - Africa, East 418
  - anatomy 362, 388, 389
    - genitalia, male 487
    - muscular system 3
    - reproductive organs 774
    - salivary gland secretions 447
    - senses, olfactory 547
  - Australia 184, 539
  - bacterial infections, *Rickettsia* 448
  - bibliography 276
  - biology 275, 389, 659
    - bionomics 556, 645
    - digestive gland secretions 477
    - See also *Phthirus pubis*, eggs; *Phthirus pubis*, life history.
  - bites, effects of 447, 455, 456, 477, 489, 505–508, 529, 704
    - superficial 624
    - systemic 218, 277
  - blepharitis due to 743
  - China 545
  - Chinese medical literature 830
  - conjunctivitis due to 463
  - control measures 261, 276, 388, 389, 409, 443, 467, 517, 523, 556, 573, 592, 664, 750, 752, 780, 782, 783, 827, 829, 830, 849, 871, 932.
    - For specific control measures *see under* Control measures.
  - dermatology, relation to 910
  - distribution 389
  - eggs:
    - description 156, 569
    - hatching spines 623
  - extracts: skin reactions to injections 501
  - hosts, blood picture 447
  - household pest 691
  - iconography 337
  - infestation by:
    - generalized 442
    - therapy 659
  - life history 388
  - Manchuria 645
  - relapsing fever vector 499
  - Samoa 572
  - taxonomy 156, 337, 617, 687
  - tetanus from bite 704
  - tracheal system, air in 623
- Pick, Walther 547
- Pierce, C. C 120, 194
- Pierce, W. D 281–283, 326, 339, 340, 424, 425
- Pigmentation of lice. *See* Color, adaptation in lice.
- Pinkerton, H 734
- Pinto, C 567
- Pivovarov, V. M 839, 889
- Pizzini, L 195
- Plague:
  - outbreak in Russia, disinfestation as a control 371
  - *See also* Bubonic plague; Ecuador, plague.
- Plotz, Harry 149, 341, 548
- Pohlmann, Hans 530
- Poisoning. *See* Insecticidal poisoning.
- Poland:
  - louse-control work 926
    - settlers, German-occupied area 890
    - soldiers at Lodz 111
  - relapsing fever, control, eastern Poland 382
  - rickettsial disease in 1938 683, 733, 796
  - typhus fever 880, 948, 958
    - control measures, eastern Poland 382
    - epidemics 393, 958
    - epidemiology 754
    - etiology 464
    - pathology 464
    - transmission 754
- Pontecorvo, G 929
- Popoff-Tcherkasky, Dora 121
- Popov, P. P 531, 549, 658

Item
Population studies. *See under* specific louse, as: *Pediculus humanus corporis; Pediculus humanus humanus.*
Portugal, infected lice found in typhus-free district 448
Potel, R. 122
Pourquoi-Pas?: Arctic voyage, 1926 578
Poverty and overcrowding, relation to louse control 375
Prausnitz, W. 123
Pressburger, Rudolf 173
Primates, phylogeny of, pediculosis as side-light on 594
Prisoners of war 955
    camps. *See* Camps, military, prison.
Prisons:
    louse and scabies problem 576, 855
    See also Camps, prison.
Proteus X_{19} 258, 813
Prowazek, S. von 68
Pshenichnov, A. V. 735, 806
Public instruction, louse-control measure, Algeria 490

Q

Quebec. Société Médicale de Québec 938
Quebec Society for the Protection of Plants 542
Quintana, Primitivo de la 951

R

Rabnow 342
Rahmet Bey, H. T. M. K. 343
Raikher, B. I. 735
Railroad systems, disinfestation procedure:
    carriages 372, 473
    Santa Fé railway 153
    section camps for Mexican immigrant workers 160
Raner, Franz 344
Rao, S. Sundar 575
Ratcliff, J. D. 952
Rats:
    and typhus fever:
        experimental work 676, 698
        Russia 653
    parasite resistance and vitamins 770, 811, 934
Rats, lice, and history 709
Raynal, J. 807, 840, 953
Raynaud, L. 490
Rearing methods for lice 333, 533, 731, 792, 812, 886
Rectal injection of lice 436, 492, 497, 533, 820, 886
    technique for Weigl's method 435
Recurrent fever. *See* Relapsing fever.
Red Cross. *See* American Red Cross; League of Red Cross Societies; Swedish Red Cross.
Refugees, delousing problems 478, 764
Regnault, F. 577
Reichmuth, W. 793
Relapsing fever 518, 654, 791, 872
    clinical aspects 786
    control measures 69, 947
    epidemics 509, 947
        winter, relation to digestive processes of louse 392
    etiology 21, 27
    louse-borne vs. tick-borne, differentiation of spirochetes 909
    origin 564
    pathology and treatment 179
    relation to typhus 30
    review of literature 384
    spirochete, life history in the louse 328, 385, 564, 863
    transmission 13, 20, 21, 25, 27, 136, 139, 178, 179, 214, 292, 295, 328, 375, 384, 385, 392, 452, 484, 509, 528, 534, 535, 543, 544, 561, 564, 598, 604, 618, 619, 639, 662, 689, 736, 741, 746, 786, 911.
    See also *Borrelia* spp.; Spirochetes, causal agents of disease; *and under* names of countries, *as*: China; Gold Coast; Poland; Serbia; etc.
Remy, Paul 578
Renault, J. 69
Rennes, Université de. Station entomologique de la Faculté des Sciences 170

Item
Revich, E. I. 812
Rheumatism. relation to pediculosis 33, 37
Richmond, A. E. 841
Rickettsia 412
    causal agent of disease:
        trachoma 768, 788
        trench fever 219, 848
    in lice 412, 428, 820, 848
        cultured 705
        mode of production 514
        Pediculus humanus corporis 511, 584
        Phthirus pubis 448
Rickettsia pediculi:
    Ethiopia 838
    identity 404, 797
    louse as true host 848
Rickettsia prowazeki:
    causal agent of typhus 228, 907
    cultured in tissue, behavior of epidemic and endemic strains 710
    development in the louse 493
    endemic strain:
        North China 834, 876, 877
        Tunis: culture in *Pediculus humanus* 705
    Ethiopia 838
    filterability not dependent on visibility 626
    morphology, in typhus-infected lice 466
    rectal injection into lice 436, 492, 886
    transmission:
        experimental work 434
        louse feces and dead lice 738
    vitality:
        in body of louse 597
        outside body of louse 738, 791
Rickettsia quintana. See *Rickettsia pediculi.*
Rickettsia rocha-limae:
    Ethiopia 837, 838
    in lice 510
        natural infection during rearing 813
Rickettsia weigli, causal agent of disease, Poland 683, 733, 796
Rickettsial diseases 587, 816, 831
    louse-borne, classification 734
Rieck 124
Ries, Erich 621, 644, 678
Riley, W. A. 532, 778
Robertson, R. C. 641
Rocha-Lima, H. da 125, 126, 196, 533, 954
Rockefeller Foundation: louse-control experiments 906
Rodents, relation to typhus epidemics, North China 877, 940
Rondeau du Noyer, M. 202
Rooms, disinfestation 944
Rose 890
Rose, George 345
Rosenau, M. J. 703
Rossiysky, D. M. 842
Roy, D. N. 891
Rubber blouses 828
Rubber cap, use in head-louse control 502
Rubber gloves 828, 944
Rubinstein, P. L. 653
Rubner's method of disinfestation 206
Rudolf, R. D. 346
Ruhräh, J. 679
Ruiz Castañeda, M. 808
Rumania, typhus fever:
    epidemic of 1917 377
    World War I 364
Rusch 197
Russell, A. J. H. 509
Russia:
    louse control 152, 839, 873, 892
        disinfestation of clothing and buildings 317, 371
        preparations 866
        problems 839
    plague, control by disinfestation 371
    relapsing fever 842
        control measures 889
    typhus fever 149, 555, 948
        control measures 317, 372, 842, 880, 889
            under village conditions 632
        relation of louse-borne and murine strains 653
        transmission experiments 806

Item

S

- Sabouraud, R. 642
- Sachs, A. 680
- Sáinz de Aja, E. A. 284
- Salivary glands of lice, secretions 268, 447, 456, 488, 489, 506–508, 513, 529, 624
- Sambon, L. W. 579
- Samoa 515, 572
  - health survey 525
- Sampietro, G. 347
- Samsonov, F. B. 632
- Sandoz, L. A. 809
- Sanitary entomology. *See* Medical entomology.
- Saraudy, Pierre 607
- Sasse, A. 198
- Sasuikina, T. 371
- Savelli, J. B. 348
- Scabies 58, 193, 232, 234, 380, 467, 725, 809, 844, 855, 891
- Scaffidi, V., Jr. 736
- Schaefer 127
- Schelenz, Curt 285
- Schiemann, O. 272, 273, 286
- Schilling, V. 128, 426
- Schmidt, W. J. 810
- Schmorell, H. 704
- Schnell, W. 427
- Schnellbach, Wolfgang 550
- Schöppler, Hermann 70
- Schools, louse control:
  - Colorado, La Junta 647
  - France, Le Havre 12
  - Germany 502, 504, 521
  - Great Britain 345, 398, 900
    - Haslingden (Borough) 903
    - London 817
  - New York City 28, 274
- Schüssler, H. 138
- Schulenburg, A. C. 622
- Schulze, Ernst 71
- Schulze, Paul 614
- Schwarz, L. 458, 608
- Searls, E. M. 811
- Seel, E. 199
- Ségal, J. 436
- Seiffert 222
- Seiffert, Gustav 955
- Seitz 129
- Seligmann 349
- Selwyn-Clarke, P. S. 491
- Sempé, Auguste 580
- Senftner, H. F. 160
- Serbia:
  - relapsing-fever control, 1915 250, 251
  - trench-fever control, 1915 250
  - typhus fever 92
    - Chadwick lectures 116
    - epidemic, 1915 110, 250, 251, 393, 394
- Sergent, Edmond 30, 72, 390, 428, 429, 459
- Shapshev, K. N. 531, 534
- Sharp, N. A. D. 535
- Shattuck, G. C. 394, 760
- Shaving 344, 782
- Shepard, H. H. 700
- Shipley, A. E. 31, 73, 130
- Shrew spirochete. See *Spirochaeta* spp., *Spirochaeta crocidurae.*
- Shrimpton, E. A. G. 737
- Shukhat, I. A. 812
- Sicard, M. 657
- Sigerist, H. E. 287
- Sikes, E. K. 623
- Sikora, H. 74, 131, 200, 201, 350, 460, 492, 533
- Simon, A. 132
- Singer, Emil 581
- Sinton, J. A. 430
- Skin, human:
  - disease and lice 288, 380, 835, 846
  - reaction to:
    - ectoparasites 615
    - louse bites 243, 323, 447, 455, 456, 477, 488, 489, 505–508, 529, 624
    - louse extracts 112, 501
- Skinner, G. A. 779
- Skins worn by African natives, disinfestation, cow-dung fires 706
- Sloïmovici 565
- Smallpox, transmission 164
- Smart, John 956
- Smit, B. 780
- Smith, A. H. 461
- Smith, J. F. 288
- Smith, P. I. 843
- Snyder, F. M. 811
- Sobel, Jacob 28
- Soboleva, N. I. 892, 957
- Soldiers. *See* Armies.
- Solov'ev, V. V. 589
- Souèges, R. 202
- Soulima, A. 75, 141
- South Africa, Union of. *See* Union of South Africa.
- South America:
  - bartonellosis 847
  - bubonic plague, West Coast, 1934 694
  - typhus fever group 954
- Spaethe 203
- Spain:
  - relapsing fever 544, 593
  - typhus fever 951
- Sparrow, Hélène 640, 699, 705, 813, 814
  - Essais de Vaccination, critical comments 697
- Spencer, G. J. 893
- *Spirochaeta* spp.:
  - *Spirochaeta crocidurae*, transmission, experiments with crushed lice 574
  - *Spirochaeta exanthematotyphi* 144
  - *Spirochaeta hispanica*, adaptation to lice 590
  - *Spirochaeta persica*, behavior in the louse 909
  - See also *Borrelia.*
- Spirochetes:
  - causal agents of disease:
    - relapsing fever 328, 385, 561, 562, 619, 915
      - adaptation of virus to louse 564
    - Weil's disease 279
    - *See also* genus *Borrelia*; Relapsing fever; *Spirochaeta* spp.
  - in lice 328, 385, 564
    - Sana, Arabia 602
- *Spironema carteri.* See *Borrelia carteri.*
- Stanford University 55, 687
- Stantchinski, V. V. 462
- Starke, Curt 391
- Starvation of lice, relation to thermal death point 675
- Starzyk, Jan 738, 781
- Steam. *See under* Control measures.
- Steam laundries. *See* Laundry processes.
- Stein, A. K. 455, 456, 488, 489, 506–508, 529, 624
- Stein, R. O. 659
- Steiner, K. 592
- *Stemona tuberosa*, insecticidal properties 783, 830
- Stempell, W. 133, 392
- Sterilizers. *See* Armies, disinfestation, apparatus; Disinfestation, apparatus.
- Steudel 204
- Steuer, W. 958
- Stigmata, respiratory, on tarsi of insects 567
- Stiles, C. W. 582
- *Strickeria jürgensi*, gen. et sp. n., typhus-fever excitant 133
- Strisower, R. 289
- Strong, R. P. 76, 290, 291, 393, 394
- Su, Der-long 764
- Sudan, relapsing fever 452
- Sun. *See under* Control measures.
- Sussmann, O. 205
- Swammerdam, Jan 8
- Swedish Red Cross, typhus fever control work: expedition to Poland, 1920 382
- Swellengrebel, N. H. 134, 206
- Swift, H. F. 290, 291, 351
- Switzerland, typhus fever, control measures on borders 916
- Symbionts:
  - of cockroaches 655
  - of lice 621, 644, 655, 663
- Symbiosis, adaptation of louse to man 933
- Symes, C. B. 959

Item

T

- Tabardillo:
  - etiology 9, 118
  - infectivity for monkeys 10
  - Manchurian typhus, resemblance to 625
  - transmission 10
    - longevity of virus in lice 597
  - *See also* Mexico, typhus fever.
- TABORSKY, J 844
- TAGAMI, Y 625
- TALBOT, G 300
- TALICE, R. V 593
- TARASSEVITCH, L. A 207
- TARAYRE 757
- TEICHMANN, ERNST 208, 209
- Temperature:
  - determination in disinfestation 148, 238
  - effect on lice 86, 176, 235, 300, 336, 340, 363, 494, 628, 629, 634, 675, 695, 707, 748, 805, 874, 875
  - *See also* Cold, effect on lice; Heat, effect on lice; and under *Pediculus humanus; Pediculus humanus corporis; Pediculus humanus humanus.*
- Tetanus, from bite of *Phthirus pubis* 704
- Texas State typhus control:
  - border inspection 210
  - quarantine 103
- Thermometer, wax 238
- THIERFELDER, M. U 739
- THIERRY, J. H 758
- THIES, O 568
- THOINOT, L 77
- THOMANN, J 782
- THOMPSON, A. G. G 395
- THURSTON, H. S 396
- Ticks 575, 680, 809
- TILESTON, WILDER 352
- TIXIER, L 431
- TODD, J. L 464
- Toenails, lice and eggs found under 438
- TÖPFER, H 135, 138, 292
- TONKOVA, V. V 569
- TOYODA, S 139
- Trachoma, transmission 684, 720, 749, 767, 768, 788
- Transcaucasia, typhus fever 372
- TRAPPE 78
- Travelers, delousing, El Paso, Texas 210
- Trench fever 259, 346, 352, 406, 518, 831
  - endemiology 303
  - epidemiology 303
  - etiology 137, 177, 196, 213, 216, 219, 230, 355, 848
  - prevention 230
    - *See also* Disinfestation.
  - relation to typhus fever 196
  - symptoms, relation to toxin from louse bite 268
  - transmission 137, 177, 213, 217, 233, 245, 304, 355, 406, 423, 553, 931
    - experimental work 216, 229, 289–291
  - war aspects 230, 351, 741
  - See also *Rickettsia pediculi.*
- TRIMBLE, H. E 536
- Tripolitania, relapsing fever 689
- Tsutsugamushi disease, transmission 699
- TULLIDGE, E. K 140
- Tunisia:
  - relapsing fever 639, 657
  - typhus fever 697, 705
- Turkey:
  - relapsing fever, outbreak of 1918 384
  - typhus fever 426
    - epidemiology 356
- TURNER, A. W 927
- Typhus fever 518, 597, 636, 654, 771, 791, 831, 872, 916
  - bibliography 347
  - epidemic vs. endemic strains 656, 673, 698, 710, 729, 864. 907
  - epidemics 426, 478, 576, 607, 880, 947
  - epidemiology 53, 79, 97, 207, 301, 356, 935
  - etiology 89, 122, 135, 138, 144, 228, 493, 579, 580
    - See also *Rickettsia; Rickettsia prowazeki; Rickettsial diseases.*
  - experimental work 15, 17, 30, 112, 117, 126, 138, 144, 429, 436, 446, 496, 584, 596, 597, 606, 673, 676, 696, 698, 710, 735, 886.
  - geographic distribution 949
  - history 79, 577, 580, 607, 709, 923, 937, 949
    - Hans Zinsser and his work 887

Item

- Typhus fever—Continued.
  - immunity 18, 496, 697, 708, 813, 814
    - Weigl's vaccine 596, 640, 705, 942
  - in immigrants, identity with European epidemic strain 421
  - in lice. *See* Bacterial infections *under* Lice *and under* specific louse.
  - index of infection 955
  - louse-extract reaction tests:
    - cutaneous 112
  - prevention 66, 69, 76, 77, 85, 89, 97, 101, 103, 120, 122, 140, 147, 160, 174, 194, 207, 251, 252, 264. 285, 296, 316, 343, 372, 377, 414, 426, 468, 478, 554, 772, 784, 840, 880, 904, 924, 925, 928, 938, 942, 947, 960
    - *See also* Disinfestation; Personnel in control work; Typhus fever, immunity
  - relation to:
    - Brill's disease 17
    - other exanthematous fevers 638
    - trachoma 684, 749
    - trench fever 196
  - symptoms and treatment 77, 122, 426, 928, 939
  - transmission 18, 23, 122, 165, 359, 377, 636, 638, 944
    - by Acarina 579
    - by ambulatory cases 958
    - by blood smears 939
    - by lice 15, 19, 35, 67, 72, 92, 109, 110, 117, 135, 138, 155, 301, 302, 306. 429, 446, 485, 496, 560, 575–577, 580, 584, 597, 606, 607, 636, 638, 653, 656, 660, 662, 673, 676, 696, 702, 716, 718, 730, 735, 738, 740, 754, 756, 761, 801, 807, 834, 840, 919, 923, 930, 937, 939–942, 944, 946, 952, 953, 958
      - from relapsing-fever patient 30
      - hereditary 30, 126, 419
    - by ticks 575
  - virus 359
    - behavior in the louse 497, 511. 724
    - transmission 359, 434, 493, 735
    - vitality 724, 735, 781
  - war aspects 35, 165, 207, 347, 426, 741. 899, 937, 948, 955
  - See also *Bacillus typhi-exanthematici;* Brill's disease; Marseilles fever; Relapsing fever; *Rickettsia prowazeki;* Tabardillo; Trench fever; Tsutsugamushi disease; Weigl, R., work on typhus fever, vaccine; Weil-Felix reaction; *and under* names of countries, *as* China, Poland, etc.
- Typhus group of diseases 575, 922, 954

U

- UBHAYA 509
- Uganda, typhus fever:
  - control 711
    - Kigezi district 706
  - transmission by lice 660
- Uganda Medical Department 660, 706
- UHLENHUTH, P 759
- ULLMANN, K 397
- Underwear. *See under* Clothing, louseproofing.
- Union of South Africa:
  - louse-control measures 780
  - relapsing-fever epidemic, Ventersdorp district 622
  - typhus fever 716
    - conditions in native dwellings 302
  - typhus group 716
- Union of South Africa, Department of Agriculture 302, 780
- United States, typhus fever 34
  - importation 54
  - transmission experiments, southeastern Atlantic States 606
- United States Army 341, 845, 898
  - expeditionary force, World War I 351, 373, 443, 472, 552
  - sanitation, field manual 845
- United States Bureau of Entomology 141, 248, 253, 281, 283
- United States Bureau of Entomology and Plant Quarantine 894
  - louse powder formula 898

Item

United States Department of Agriculture, 141, 383
United States Hygienic Laboratory, Collected Studies on Typhus, 9, 10, 17–20
United States National Museum, 538
United States Navy Department, medical compend, 960
United States of America Typhus Commission, 899
United States Public Health Service, 93, 100, 194, 210, 242, 353, 425, 536, 599, 694
United States Public Health Service, New York Quarantine Station, 536
United States War Department, 248, 548, 552, 845
Unna, P. G, 211
Urizio, L, 334

V

Vaccine. *See* Weigl, R., work on typhus fever, vaccine.
Vagabond, aplastic anemia and pediculosis, 635
Vagabond's disease, 431, 565
Vago, H. A, 142
Vaughan, V. C, 79
Vámos, L, 846
Vargas, L, 895
Vedder, E. B, 583
Veintemellas, F, 740
Vercoe, R. H, 398
Verruca peruviana. *See* Oroyo fever.
Vialatte, C, 30, 428, 429
Viallefont, H, 815
Viciano, 585
Vinsser, Hahns, 394
Vitamins, relation to parasite resistance in rats, 770, 811, 934
Vöhringer, E, 199
Voelkel, H, 479
Vogel, R, 432
Volhynia fever. *See* Trench fever.
Volpino, G, 707
Vondran hot-air apparatus, 88, 183
Vonkennel, I, 551
Vrijheid, J. A, 143

W

Waddy, R. G, 463
Waitz, R, 635
Waldmann, A, 741
Waldow, 212
Wang, C. W, 940
Wang, Lo-shan, 783
Wanhill, 354
War. *See* Armies; Human disease and lice, war conditions.
Waterston, James, 661
Wax thermometer, 238
Weather conditions, effect on lice, 440
Weed, F. W, 552

Item

Weel, P. B. van, 678
Wei, Yü-lin, 766
Weigl, R, 510, 708
  work on typhus fever, 596
    louse injection, technique, 435
    vaccine, 640
      formula, 942
Weil, E, 511
Weil-Felix reaction, 258, 814
Weil's disease, transmission experiments, 279
Weinman, D, 847
Weiss, E, 293
Weldon, R. P, 233
Welsh, Mabelle S, 512
Werner, H, 213, 214, 355, 553, 848
Werner-His disease. *See* Trench fever.
Wernicke, R, 433
Wesenberg, G, 80
Western Australia, Department of Agriculture, 932
Weyer, F, 886, 961
Whitfield, Arthur, 22
Wickware, A. R, 513
Widmann, Eugen, 81, 82
Wiese, O, 214
Wiese, Otto, 294, 295
Wigglesworth, V. B, 594, 623, 896
Wikulli, L. von, 643
Wise, F, 742
Witzenhausen, 595
Wolbach, S. B, 464
Wolf, 215
Wolf, J, 742
Wolhynian fever. *See* Trench fever.
Wollermann, 32
Wolpe, Lotte, 399
Woo, S. M, 400
Woodcock, H. M, 514
Workhouses, louse problems in, Minneapolis, 700
Wright, C. S, 670
Wünsch, A, 199
Wulker, G, 83
Wybourn, J. T, 897

Y

Yemen. *See* Arabia, Yemen.
Young, C. W, 465
Yu, Nichishun, 626

Z

Zacharoff, A. *See* Zakharoff, A.
Zakharoff, A, 555, 584
Zia, S. H, 834, 876, 877, 940
Zinsser, Hans, 597, 709, 816
  typhus studies, 887
Zlocisti, T, 356
Zumpf, F, 961

O